REPEATER JOURNAL

November, 1984
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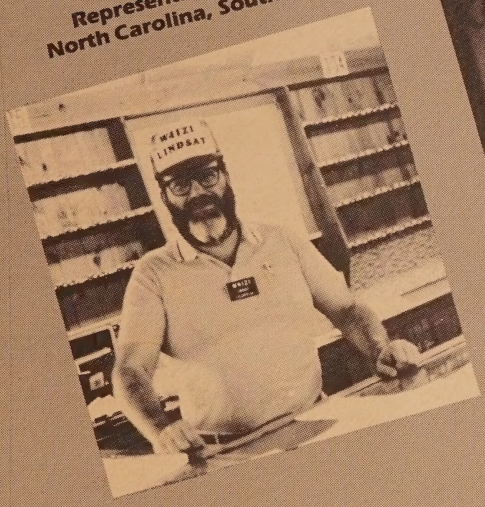
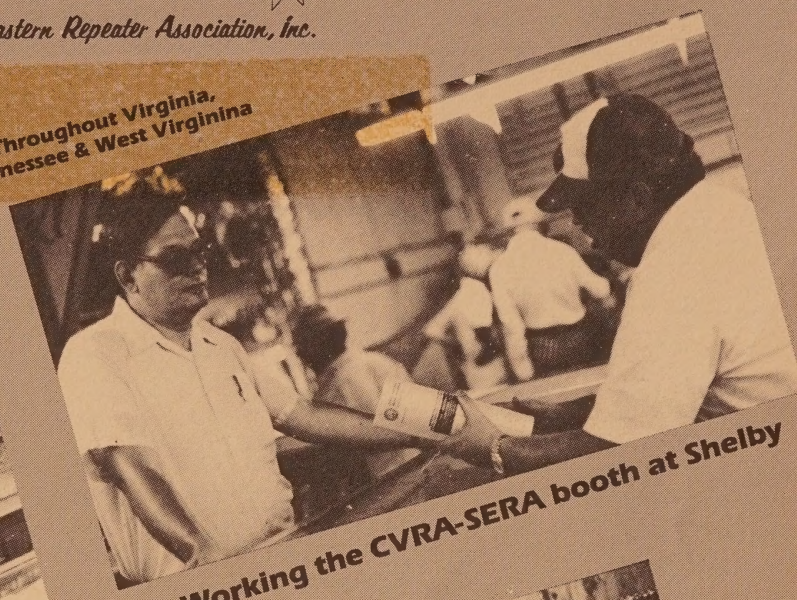
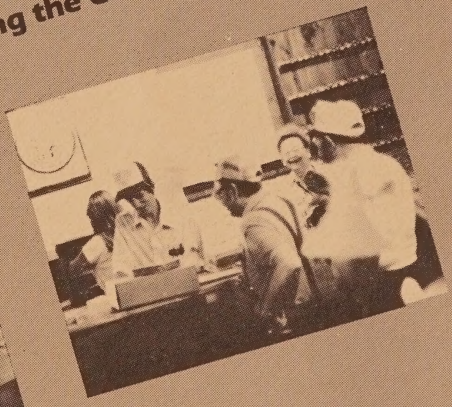
CVRA-SouthEastern Repeater Association, Inc.

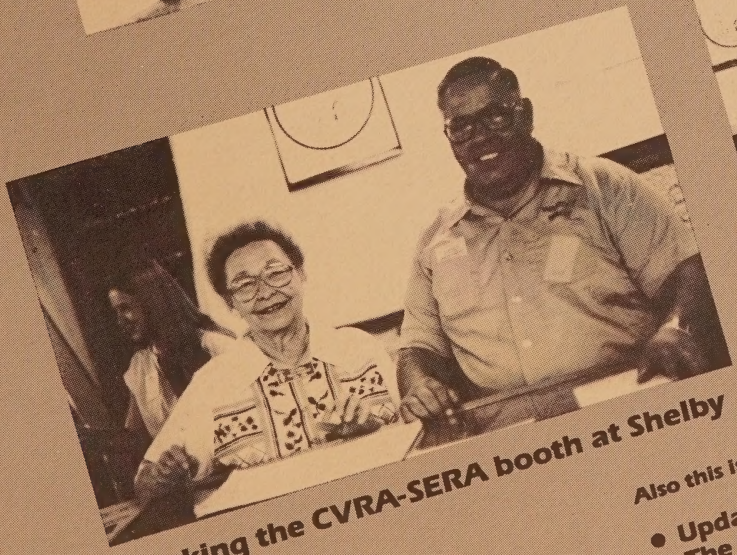
Representing UHF-VHF Interests Throughout Virginia, North Carolina, South Carolina, Tennessee & West Virginina





Working the CVRA-SERA booth at Shelby





Working the CVRA-SERA booth at Shelby

Also this issue . . .

- Updated Repeater Index
- The Hurricane Diana Story
- Director/Vice Director Nominations
- Full Membership Application
- 1985 Hamfest Calendar

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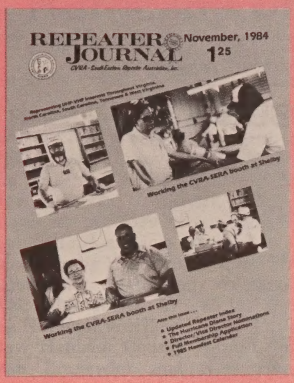

ON OUR COVER

Our cover for the November issue is dedicated to our Officers and Appointees who manned the CVRA-SERA booth at the Shelby Hamfest. Among those in the photos are Carter Cogle, Pres., Lindsay Cleveland, Assoc. Membership, David Ward and Sharon Ward, Assoc. Membership and Sales Manager, Jim and Thelma Fitzgerald, VP & wife, Wally Burkette, Asst. Dir., Va. and others. Our appreciation to them for their time and effort during the two day event.

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Mirror Graphics, Inc.

Camera Graphics by:
Piedmont Publishing Co.

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REPEATER JOURNAL

CVRA-SouthEastern Repeater Association, Inc.

NATIONAL AWARD WINNER

Nov.-Dec.-Jan.
VOLUME 13, NO. 4
ORGANIZED IN 1971
"IN OUR 13th YEAR"

Editorial Comment

Who Is Actually Running the Show?

The question of who is actually running the show has finally arisen within the CVRA-SERA "hierarchy". I guess things finally came to light at the Shelby meeting when not one single State Director was present.

Once again, there was not a quorum to conduct official business. This is the way it has been for 18 months now.

A quorum within the CVRA-SERA board of directors consists of a majority of the State Directors present. There are only five of them, and they are the only ones who can officially conduct business and vote on pertinent matters before the organization, according to the existing bylaws.

None of the officers, appointees or others have any voting rights. They do have the authority to voice an opinion, make motions and participate in discussions, but the Directors have the final sayso with their vote.

I think the Directors, like many of the other officers in CVRA-SERA haven't taken time to read the by-laws. They don't know their complete job function. Possibly the directors feel all they have to do is coordinate repeaters. (Actually some over the past years haven't even done that properly).

I have been a vice-director, a director, an associate editor, and am now editor and publisher of CVRA-SERA since 1973. My 11 years with the organization have seen a lot of good men come and go. I have also seen some that I was glad to see leave the organization's executive folds.

Often, new Directors have been told by we appointees who have been around a long time, "You got to do the job right, because we will have to continue when you leave office."

It seems the appointees are the ones who put in the most hours, work the hardest,

Continued on Page 46

An Open Letter to Full Members . . .

As you know it is election time. Every two years, we search for people who will take on the job as Director of each of our five Districts of Virginia, North Carolina, South Carolina, West Virginia and Tennessee.

You will see a separate story in this issue naming people who have been nominated by a nominating committee to be your Director for the 1985-1986 term. You will also see a "from the floor" nominating blank, to give each of you who are Full Members a chance to voice your opinion as to who you might want to lead your district in the coming years.

I am well aware that coordination is very important and a good man should be available for coordination. But since I am a keeper of the indexes, I know that coordination has dwindled to only a trickle over the past two years. Most states have only a gain of 10 or so repeaters since 1982.

I think your new director should be more than a coordinator. He should be a public relations man. Someone who searches throughout your state and grasps what is going on He should see that all the news he can get is published from your State. He should conduct regional meetings to allow repeater owners to get together and talk. He should keep your state repeater indexes completely up-to-date and accurate. He should attend hamfests in your state and see that CVRA-SERA is represented at a booth. He should work with repeater owners throughout your state, encourage them to join our organization, tell them about CVRA-SERA and the benefits of being a part of the largest Repeater Organization in the nation.

Your new Director should have assistants across the state to keep him informed as to what is happening. He should work with a Vice-Director equally as motivated and see that trouble spots are worked out. He should speak to you through the Jour-

Continued on Page 46

REPEATER JOURNAL

NOV.-DEC.-JAN.

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About CVRA-SERA . . .

CVRA-Southeastern Repeater Association, Inc. is one of the largest Repeater Organizations in the United States. In our 13th year of operation, the Association is positive proof that coordination efforts have paid off in the Districts it serves. Two of our Districts are 11th and 13th in the Nation in numbers of Amateur repeaters. We shall strive to continue to keep our area interference free with cooperation and coordination efforts of our Amateur repeater owners and CVRA-SERA as in the past 12 years.

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About the Repeater Journal . . .

The CVRA-SERA REPEATER JOURNAL is published quarterly, during the months of February, May, August and November of each year and mailed free to members of CVRA-Southeastern Repeater Association, Inc., a non-profit coordinating organization made up of repeater owners and users. Permission is granted for use of material contained in the REPEATER JOURNAL, provided proper credit is given. The REPEATER JOURNAL Editor will swap newsletters with other Repeater Councils and News organizations on request. The REPEATER JOURNAL press run is 4,500 copies with circulation membership in excess of 3,900 and is entered as Third Class Mail at the Post Office in Greensboro, N.C. REPEATER JOURNAL copies may also be obtained at most area hamfests for $1.25 per copy. All news and Newsletter exchanges should be mailed to the Editor and Publisher, Wayne C. Williams, K4MOB, 600 Lakedale Road, Colfax, N.C. 27235.

About Associate Membership

Repeater users and Amateurs are invited to join CVRA-SERA as Associate Members. A membership fee of $4.00 per year will enable members to support the organization and receive the "Repeater Journal". Note: Associate Membership deadlines are on the 15th of the month preceding months of publication – Jan. 15, April 15, July 15 and October 15. Persons joining or renewing their membership must have their application into the Greensboro Post Office Box by these deadlines to receive the next upcoming Repeater Journal in February, May, August and November. Memberships received after any deadline will not receive the next to be published Journal, but instead will receive the forthcoming issue the next quarter. Memberships received at hamfests will receive a current "Repeater Journal" as long as supplies are available and the next regularly scheduled issue through the mail.

About Full Repeater Membership . . .

Officers and Directors are elected from members of CVRA-SERA Full Membership. Any repeater owner or club may join our organization as a Full Member by filling out an application and submitting it with $8.00 annual membership fee. Two representatives are named for each membership and each receive the "Repeater Journal." The Full Member repeater is appropriately recognized as a full member repeater in our repeater index in the Journal. Full Memberships all expire on December 31 each calendar year.

Hurricane Diana Sweeps East Coast of Carolina

–by David M. DuMond, N4CVV

Members of the following clubs: (1) Azalea Coast ARC, (2) Cape Fear ARC, (3) The Four County ARC, (4) Wilmington VHF Association and other hams in New Hanover, Brunswick and Pender Counties provided emergency communications services during the dual onslaught by Hurricane Diana. A net of hams was established at numerous evacuation centers around the area, in the National Weather Service Office at New Hanover County Airport, and at both Brunswick and New Hanover County law enforcement centers. Net control was in the New Hanover County Sheriff's Office where information about evacuations, travel conditions and other law enforcement operations could be monitored and passed on, if necessary.

HF frequencies in the 75m band and 2m VHF frequencies were employed for outside and local communications, respectively, for the receipt and sending of formal traffic, much of which was of priority nature, general information and for medical communications, particularly at the evacuation centers.

The ham community felt severly hampered by the loss of the K4GMP, 22-82 repeater. This machine, down because of a blown fuse since shortly after Labor Day, usually provides not only wide area coverage throughout SE North Carolina and NE South Carolina, but also links into Raleigh and throughout much of North Carolina. The 13-73 (W4VNK) and 66-06 (WA4LED) machines, both local to Wilmington, and the 34-94 (K4LZY) repeater in Burgaw had to suffice. HF operation on 75m was substituted for the K4GMP repeater.

Evacuation centers began to fill during the early afternoon of September 11. Most businesses and schools were closed. Hams at most emergency communication points began operation by the evening of September 11. During the night, winds were high and the rain was steady and torrential, but by the following morning, it was realized that the area had sustained only minor utility line and tree damage.

Diana had wobbled to a pause east of Cape Fear. During the day of September 13, she remained nearly stationary while wind circulation increased in speed and internal barometric pressures fell. The hurricane watch remained in effect throughout the day. All communication centers, being manned by hams, remained operational.

Diana began to move westward very slowly by the evening of September 12. Reports of downed power and phone lines, hazardous driving conditions and up-to-the-minute weather information were paseed out over 13-73. By 3:00 AM of September 13, all but two public communication services, 1 radio station (WAAV) and 1 television station (WWAY, Channel 3) were without power. These stations were being powered by emergency generators. Telephone communications throughout most of the area was not possible. The amateur stations remained in operation supplying much needed information to and from evacuation centers and passing formal traffic into and out of the area.

By dawn, travel was not only hazardous, but in many areas impossible due to flooded roads, downed trees and live power lines in streets.

Ham operators remained at their stations throughout the day, many not having a break for more than 24 hours. Not until the afternoon of September 14 were ham operated emergency communications services secured as phone lines were repaired and regular communications were hastily restored.

This was a test for amateur radio, a real one and a successful one. Since the official hurricane season does not end until the last day of November, it may be premature to state that the most outstanding weather event in 1984 was Diana. We can only hope and bear in mind that it could be much worse next time, much, much worse.

Pender County Amateurs during Diana

–by ELLA PORTER – KA4PAY

Adrian Perseghin KA4PAZ had done all the footwork for an emergency drill for the amateurs of Pender County. Jerry Randall, the county Emergency Preparedness leader, the Mayors of Topsail Beach and Surf City and the Sheriff Dept. was in on the planning. The 34-94 repeater K4LZY owned by these and other amateurs called the Four County Amateur Radio Club located out of Burgaw would be used.

There's just a handful of amateurs in our county but willing to do what they could. All that was needed was a date. Suddenly we had no time for a drill the real thing was coming in the form of a hurricane named Diana. By 8:00 Tuesday morning Sept. 11, 1984 Adrian was contacting people about setting up stations starting at noon. KB4BVA, Bill Meszes at Surf City, later he had to move inland to Holly Ridge to an evacuation center where the Mayors of the two beaches would be receiving and sending messages. Manning two evacuation centers were KB4GVH, Everett Bradshaw in Hampstead at Topsail High School and WD4ALZ Ray Fields at Pender High School. Setting up at the Law Enforcement Center were W4YBA "Shep" Shepherd and K4LZY Raymond Fields. KA4PAZ set up in the Emergency Preparedness office. WD4DPH Mike Meszes was at home on the Lowhand and 88 repeater. KA4PAY Ella Porter was at home on the 2 meter base making sure messages were received from one set up to the other, keeping touch with the Wilmington 13-73 group as needed and keeping the Jacksonville group WD4FVO abreast of weather and conditions. Everything went smooth.

People not wanting to leave the beaches gradually began to trickle into the centers. When the threat of the storm moving inland was issued the decision was made to send about 175 from the Topsail High School into Pender High. Due to phone failure this message was relayed by amateur radio. But as night fell Tuesday others began coming into the Topsail School and other centers, happy to be in safer quarters and being kept aware of all weather as N.O.A.A. gave it to the K4YNY station at the weather bureau in Wilmington. An amateur AE2L, Josh Brehm, from New Jersey was vacationing in Rose Hill in Duplin County came on the air to inform us he would be monitoring by scanner and would go mobile to receive messages and deliver anything by phone or car that need be. He really came in good and stayed with us on Tuesday till 9:30 that night and checked in early Wednesday and Thursday staying each day until 9 or 9:30. He is a member of ares.

The storm toyed with all of us overnight, messages from the preparedness office to the Mayors Kippegard and Paliotti and to Vance Kee, area Emergency Preparedness office in Wallace were delivered. Occasionally a family worried over members who had gotten separated were informed where the others were or a phone call to Wilmington to inform a father that his family had gotten off Myrtle Beach and was safely inland with friends bringing peace of mind with each message.

Came dawn Wednesday many left the shelters. We amateurs worried but stayed our post knowing that when dark came they'd be back. Some operators took the chance to catch a short nap having been set up for 18-24 hours. We had requested some help from State headquarters AI0K in Raleigh as we had no one to relieve us. Late Wednesday afternoon music to our ears in the form of

Continued on Page 31

GREENSBOR

The Mark 4 Amateur Radio Club Cordially Invites You To- The 4th Annual 1984 Greater Greensboro N.C. Hamfest

DATE:	*November 24 + 25*
HOURS:	*9:00 A.M. — 5:00 P.M.*
LOCATION:	*National Guard Armory-Franklin Blvd.*
GRAND PRIZE:	*Yaesu FT 757GX + FP 757GX Power Supply*
2nd Prize:	*20 AMP Astron Power Supply*
Pre-Reg.:	*Yaesu 208R 2-Meter FM Handheld*
★:	*Many Other Valuable Prizes To Be Given Hourly.*
PRE-REGISTRATION:	*$3.50 For Advance Tickets*
REGISTRATION:	*$5.00 At The Gate*
FLEA MARKET:	*Price Of Ticket (Outside)*
INSIDE:	*Price Of Ticket + $9.00 (per table) Rental*

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For Pre-Registration Tickets ONLY.

Write: Fred Redmon (N4GGD)
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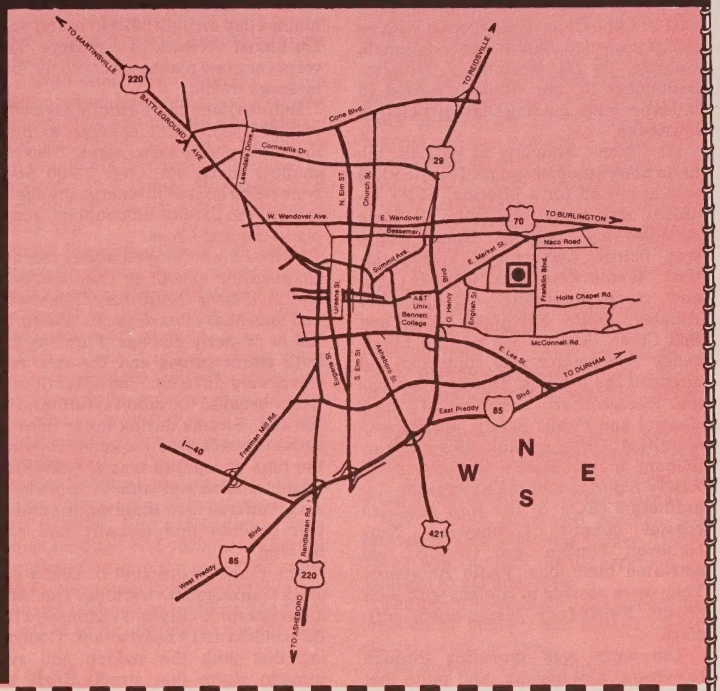
Send In Your Advance Registration Now and Save $1.50 per ticket. Your Tickets Will be held at the gate for you to pick up upon arrival Saturday morning. SAVE $1.50 and be eligible for Pre-Registration Drawing. SEND IN THE COUPON WITH YOUR CHECK TODAY!!

O HAMFEST

ARRL APPROVED HAMFEST



TALK IN:
–146.520 Real Close
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Pre-Registration Form

Please Pre-Register me for the Greensboro Hamfest, November 24-25.
Enclosed is my check for: ★ *Please Send S.A.S.E. - TNX*

_____ ☐ **Hamfest Tickets @ $3.50 ea.** ..... $ _____
_____ ☐ **Flea Market Tables @ $9.00 ea. (2 Days)** ..... $ _____
Total ..... $ _____

NAME _____ *CALL* _____
ADDRESS _____
CITY _____ *STATE* _____ *ZIP* _____

•Monies must be received in Greensboro no later than November 17, 1984.
Make all checks payable to the **GREATER GREENSBORO HAMFEST.**

Amateur Radio Responds to Hurricane Diana

–by Reed Whitten, AB4W, SEC, NC
Herb Lacey, N4UE

The Radio Amateurs of North Carolina distinguished themselves again during and after Hurricane Diana, September 8, through September 15, 1984. Amateurs volunteered their time, equipment, and talent in helping thousands of citizens to bounce back from that very unusual hurricane.

Hurricane Diana was unusual in that it did not start in the southern reaches of the Caribbean. It sprang up just 60 miles east of Cape Canaveral, Florida with an initial projected landfall near Savannah, Georgia. By the morning of Monday, September 10, her winds exceeded 75 miles per hour, making Diana officially a hurricane.

At 2 p.m., Monday, in Raleigh, the State Emergency Response Team (SERT) was activated for a briefing. SERT includes representatives from all State agencies (e.g., National Guard, Highway Patrol, Corrections, Transportation, Human Resources, Wildlife, etc.) and three non-State organizations: Amateur Radio, Salvation Army, and Red Cross. AB4W, NC Section Emergency Coordinator was contacted and attended the briefing. During the briefing, Heman Clark, Secretary of Crime Control and Public Safety, specifically identified Amateur Radio as a key participant in the State's response plan. AB4W reported that the Emergency Coordinators (ECs) in the four southern coastal counties (Brunswick, New Hanover, Pender, and Onslow) had activated their local Radio Amateurs. They were already in contact with their county Emergency Management officials.

The word was spreading through television, newspapers, and radio that all precautions should be taken along the east coast as far north as Cape Hatteras. The path of the storm was unpredictable, of course, but what was known was that serious flooding and storm surges were almost guaranteed – it was the time of the lunar high tides. The timing of Diana could hardly have been worse. The one good thing that Diana allowed to happen was to give a lot of warning. People had begun to evacuate the beaches, secure their boats and homes.

By Tuesday, September 11, the winds of Diana had reached 125 miles per hour. It remained at sea, gaining intensity. Its initial course was set for landfall between Myrtle Beach, South Carolina and Wilmington, North Carolina. Most of Tuesday and Wednesday – 36 hours, Diana was almost stationary off Cape Fear. ECs and their local Amateurs were already manning emergency communications points (county Emergency Operations Centers – EOCs) in the potential landfall areas. ECs and the Red Cross shelters were already requesting additional Amateur stations and relief operators. SERT advised not to fill all of the requests due to the continued uncertainty regarding landfall. The withholding of some of the resources seemed cruel, but, as it turned out, they wanted to be able to send what resources they had – Amateur Radio – to the places in need. That could only be known AFTER the fact of landfall. We waited. The State EOC, in Raleigh, was being operated 24-hours a day on both 3923 kHz and on the 2m linked network of repeaters. There were very few places we could not move message traffic.

Before Diana came ashore, high winds still did significant damage to power lines, telephone lines, signs, trees with shallow roots, etc. Over 7,000 people were being housed in emergency shelters in 13 of the hardest hit counties, according to the Red Cross.

After 1 a.m., on Wednesday morning, Diana came ashore at Carolina Beach and Ft. Fisher in full fury. High winds and torrential rains began to take further toll in property damage. Flooding from both storm surges and the rain made travel very difficult. The lunar tides are larger because the moon is farthest from the sun. Storms during lunar tides can cause massive beach erosion. However, the time of landfall was at LOWTIDE! Beach erosion was almost nonexistent. As a matter of fact, some reports told of a few beaches that actually had some buildup.

The casual movement of Diana gave more than adequate warning. The loss of life was kept to only two victims — a traffic accident and a heart attack. Contrasting that with the sudden and swift tornado storm that struck North and South Carolina on March 28, 1984. Then, there were **44 people killed.** True, tornados occur in more concentrated areas, but the value of the warning cannot be underestimated. After the March tornados, North Carolina Amateurs worked diligently for over two weeks providing communications until phone lines could be replaced in and around Red Springs, North Carolina.

This time Radio Amateurs were volunteering from across the region, checking into the 75 meter NC emergency frequency, 3923 kHz and on the linked repeater network having the wide-coverage repeater, K4ITL, in Raleigh as its hub. Coordinating and planning were kept in good order. Resources were made available from many areas. One group of 5,000 people in Bolivia, North Carolina, were found who had not had food in over 24 hours. By Amateur Radio, the word was relayed from the Governor's Helicopter back to the NC Emergency Operations Center for the National Guard to expedite food supplies for the town. We are told that delivery of food was made after just a few hours.

As this is an abbreviated report, the names and call signs are not listed of the many Radio Amateurs who both actively participated and were ready to participate. If we listed some here, we certainly would omit many more. All are deserving of credit for doing what we can do best: communicate. The ones who were standing by did the outstanding thing by not using the frequencies for "normal" communications. They were monitoring the movement of the storm and the coordination of relief efforts.

Many offers of assistance came in from western North Carolina, South Carolina, and Virginia. Fortunately, Diana wandered off into the Atlantic Ocean, again. The impact to North Carolina was much less than anticipated. Surely the damage was evident, people had to rebuild homes, move to new quarters, etc. Yet, when all of the winds quieted, the people of the coastal area of several States realized that it was now a time to go to work and restore their lives.

Once more, Amateur Radio has proved itself to the public as being a valuable resource. None of us enjoy these emergencies, but when they come, Amateur Radio can perform.

Examinations Sked

Vinton, Va.

Examinations will be held at the Vinton Fire House Building on November 17 at 8:00 a.m. in Vinton, Va.

Pre-Registration was required with deadline of November 1. There will be no walk-ins. The exams are to be given by members of the Roanoke Valley ARC VE's, coordinated through WCARS-VEC.

High Point Exams

Examinations for Amateur licenses were held November 10th at the Church of Christ in High Point, N.C. The reserved exams were conducted by TEARC/VEC of High Point, Jim Williamson, NQ4T, Chief Officer.

Charlotte Exams

The Charlotte VEC will be coordinating Amateur upgrade examinations in the Charlotte area at the Charlotte Hamfest, March 16-17. For information and reservations, contact Mary Weddle, WC4T, 227 Bennett Lane, Charlotte, N.C. 28213. Exams are coordinated by AREA 4-VEC.

AF Academy Appointment

Van "Allen" Wimmer, Jr. – KA4VXN, son of Van – WA4BIX and Rose – WA4TLH, brother of Jeffrey – KA4VXM and Michael – KA4VXO, grandson of Eva Wimmer – KB4DDX, has accepted an appointment to the U.S. Air Force Academy in Colorado Springs, Colorado. All are from the Roanoke County, Virginia area. Allen is a honor graduate of Northside High School and member of the National Honor Society.

Allen is a cadet member of the Roanoke Composite Squadron of the Civil Air Patrol which meets at Woodrum Field Airport in Roanoke. Allen has earned his pilots license and wings thru CAP programs. Allen attended many CAP encampments and schools including an extensive officer school and achieved the rank of Lt. Colonel.

In 1981 Allen won a regional competition of the NASA-National Science Teachers Association Space Shuttle Student Involvement Project in which he wrote and designed a project for the Space Shuttle. As a result he got to spend a week at NASA's Langley Field Research Center, along with other winners, where NASA scientist interviewed him, reviewed and considered his project for inclusion in the Space Shuttle Program.

Allen was an active amateur operator on VHF, FM & RTTY, and a member of Army MARS, call AAT3EN. He also was active and well known in CAP radio nets.

Allen participated in many CAP search missions and was responsible for a find in which he used radio direction finding equipment, simular to that used in an amateur transmitter hunt, to locate the responsible emergency transponder.

Minutes CVRA-SERA Fall Meeting

–by Nita Morgan, N4DON, Secretary

The Fall meeting of the CVRA-South-Eastern Repeater Association was held September 1, 1984 at the Governor's Inn, Shelby, N.C. The dinner meeting was called to order by President Carter Cogle.

A motion was made by Ray Adams, Treasurer, to change the requirement for a quorum from a majority of directors to those present at any regularly scheduled meeting or any meeting called in accordance with the by-laws, This and other proposed changes in the by-laws will be mailed to directors with a ballot to follow 30 days later.

Co-ordination of Simplex Auto Patches, which had been discussed at the January, 1984 meeting was brought up again by Wayne Williams. He thinks they should not be condoned and not be approved. The group discussed it at length and Wayne urged the directors to look in to it.

Wally Burkette, WA4KXV, has co-ordinated a Packet Radio repeater in his area. The group discussed what frequencies should be used. Carter said 145.01 MHz is the most popular. Billy Gilley, W4YXA, thinks it is the coming thing and commented that 220 MHz might be a good place to co-ordinate them. Carter appointed a committee of all 5 directors to get a report together by the next meeting in January.

Wayne Williams passed out 220 MHz petition information to those attending. Land Mobile Communications Conference (petition RM 4829) is asking the Commission to give the either the entire band, or a segment in the 800 MHz area. Sideband Technology (petition RM 4381) has asked to be allowed to use the segment from 216 to 222 MHz. The August 29, 1984 closing date for sending comments to FCC was extended but immediate action was suggested.

John Kanode, N4MM has been elected a Director of QCWA National. The QCWA might petition the FCC to allow Novices to have phone privilege on the 220 MHz band. He wanted comments from those present. The group doesn't object but was not sure how it should be handled.

Lindsay Cleveland, W4IZI, passed out listings of repeater membership to directors and others present.

David Ward, KA4LVO, gave a membership report. He asked for ideas for getting new members. The mailing lables were different on the last issue of the Journal and not indicate the expiration date. David reported on a mailing problem where the subscriber doesn't always get his Journal. He gets 1st class mail but not 3rd class. Wayne suggested the Postmaster in that area should be advised that 3rd class mail is not being delivered.

Carter said a nominating committee for election of new directors was to have been appointed by noon, September 1, 1984. Wayne suggested he make directors the nominating committee. Carter agreed.

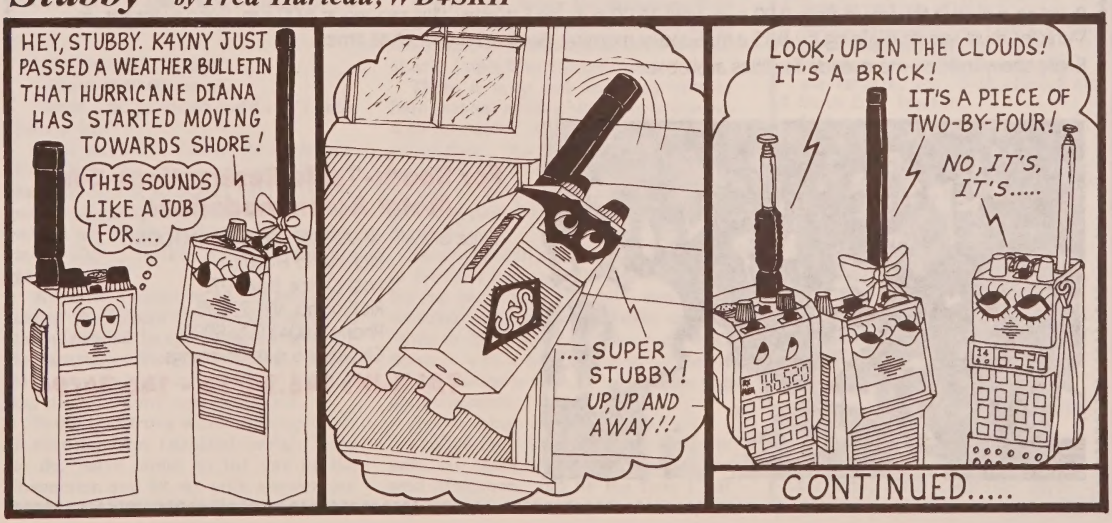
Vice President Jim Fitzgerald, K4OJE, thinks the directors should visit the trustees of repeaters. He encouraged all areas to write articles for the Journal.

Ray Adams suggested sending the Journal to area Welcome Center. David Ward will contact the Department of Tourism to get addresses.

The group discussed a place to hold the meeting in January and agreed Carter should select the place.

The meeting was adjourned.

Stubby by Fred Hurteau, WD4SKH


HEY, STUBBY. K4YNY JUST PASSED A WEATHER BULLETIN THAT HURRICANE DIANA HAS STARTED MOVING TOWARDS SHORE!
THIS SOUNDS LIKE A JOB FOR....
....SUPER STUBBY! UP, UP AND AWAY!!
LOOK, UP IN THE CLOUDS! IT'S A BRICK!
IT'S A PIECE OF TWO-BY-FOUR!
NO, IT'S, IT'S.....
CONTINUED.....

★ ★ ★ ★ ★ ★ ★ ANNOUNCING THE EIGHTH ANNUAL ★ ★ ★ ★ ★ ★ ★

RICHMOND FROSTFEST

Winter Amateur Radio and Computer Show

SUNDAY, JANUARY 13, 1985

Virginia State Fairgrounds, Laburnum Avenue, Richmond, Virginia
Hours: 8:30 A.M. — 3:30 P.M.

GENERAL ADMISSION $4.00
(Children under 12 free with adult)

FLEA MARKET SPACES (without tables) $3.00
(8′ tables may be rented—$4.00)

FLEA MARKET EXHIBITORS MUST PURCHASE GENERAL ADMISSION TICKETS
(Make checks payable to Richmond Frostfest)

★ ★ ★ **OUTSTANDING PRIZES AGAIN THIS YEAR** ★ ★ ★

1st PRIZE: Brandname Multiband H. F. Transceiver
2nd PRIZE: Honda EM1600 Watt Portable Generator
3rd PRIZE: Kenwood 2 Meter HT with Accessories
4th PRIZE: 25 amp Astron Power Supply
Prize drawings every hour starting at 10:00 a.m.—top drawing at 3:00 p.m.
Special drawing for flea market exhibitors.

Booths for Commercial Exhibitors

Commercial Exhibitors deadline is December 30. Call or write. Booths include backwall space or backdrop and divider. One table per space. Additional tables may be rented.

Paid up flea market reservations accepted until January 10.

Building available for set up from 2:00 p.m. until 11:00 p.m. on Saturday. Will reopen at 6:00 a.m. Sunday for set up. Vehicles must vacate building by 8:15 a.m. Sunday morning. Armed security at all times.

Entire show inside—no outside facilities available.

For Booth-Table Reservations-Cost Motel Accommodations

Write or Call: W. A. "Bill" Scruggs (N4DDM)
Richmond Frostfest
Post Office Box 1070
Richmond, VA 23208
Phone: (804) 272-8206
Call after 6 p.m. evenings.

TALK-IN: 146.28/88 - 146.34/94

A Dream Tinged with Nightmares . . .

–by Wayne C. Williams, K4MOB

There it was, my final plans for the "dream" hamshack. It had been in the planning stages for over 10 years. Now, the time was right, finances were available, time was available the plans were drawn, the wife had given the ok . . . how could I lose . . . .

"I'm sorry, Mr. Wiliams, you'll have to have a Health Department inspection before we can issue you a building Permit," said the cheerful young lady at the Guilford County Planning Commission office.

I of course panicked, I didn't need the Health inspector looking around my home right now anyway. You see, a large truck had driven over my septic tank and cracked the lid, and early this past Spring, I noticed a little hole in the ground which grew larger with each rain. I finally decided the whole thing was going to collapse at any time. I had tried to get someone to come out and fix it. Everybody was too busy. One fella said he'd come out when he got a chance. This was two months ago.

It was now early July. I frantically called him for advice. I wanted to start building my "dream" ham shack, but a stupid septic tank was holding me up. He was quite concerned and finally after a few weeks decided to come over and help. Then it was decided my septic tank was in need of pumping out. So we started over again. Finally found a nice fella who cared and he came out and pumped the tank.

You guessed it . . . I got the expected phone call at work the next day.

"Mr. Williams, we pumped your tank, but the old top and about 3-feet of dirt is down there, and it really needs to come out."

"How much", I asked . . .

"About $150.00 more".

"Sigh!, OK, go ahead and do it," I painfully said.

Well anyhow, the septic tank was fixed and things looked up. Then it dawned on me, what do I tell the Health man when he spots a fresh mound of dirt where my septic tank belongs, looking much like a freshly dug and covered grave.

Anyhow, I gathered up the nerve and called the Health Department and told them I needed the appropriate inspection to ascertain officially where my septic tank was located, so I could get a building permit for my new hamshack.

Being the strong willed, champion of Justice that I am, I decided the right thing to do, leave home on the day of the inspection and let my wife answer any questions the Health Inspector might have. We passed!!! It was decided that since my septic tank was located on the South side of the house, and the proposed construction was on the North side of the house, there would be no problems.

Now, we're getting somewhere. I called the Building Inspections office and they said I could send someone over to pick up my Permit (I had everything filled in during the first trip)

Number 3 son, Chris was sent over to Greensboro to get the permit. When I got home from work, there it was, all the official looking paperwork, and the precious 11x14 card.

I immediately went out to hang it up.

The next day, I got my friend Jim, KD4ST for a little consultation. Jim, being in the construction business, was most helpful. He showed that it would be IMPOSSIBLE to tie the roof in of the new ham shack extension to the roof line of the house.

I'd just tear down the old ham shack, and start from scratch," Jim advised.

I told him I couldn't do that, where would I keep everything during the construction period.

Oh well! Back to the drawing board. The only other way I could design the enlargement was to extend straight off the end of my existing hamshack, but was there enough property line for this? It sure was, I found out!

So I set forth drawing new plans. Instead of building from the house narrow, and long at the front, I'd build long from the house, and straight across the front.

Then it hit me. My 65-foot telephone pole was in the way.

The choice. Move the telephone pole and go with the new plans, or stick to the old plans, and tear down the old 8x15 shack. I opted for the new plan.

There is only one company around here that has a truck big enough to move a 65-foot 2,700 lb. telephone pole, so I called them. The nice man came out and said sure, they could move it. The cost would be $450.00. A 10-foot move a $45.00 a foot. I thank him, and said no thanks!

Somewhere in my files was the name of the fella that actually put the pole in for me years ago. I looked, scratched, searched and tore, and sure enough down in the bottom of one of my desk drawers was a little scrap of paper. It merely said pole man, gave his name and phone number.

Again, things are looking up.

I called the fella, he remembered the pole. He came over with a partner the next afternoon, and by the time I got home from work, they had the pole moved and were waiting for me to come home and pay them. Anyhow, I got the job done much cheaper.

Things are looking up!

I called my Number 1 son, Wayne, Jr. and told him to get Jim and come on, we're ready to dig some footers. Well, as it happened, the first weekend, Wayne had to work. The second weekend, it rained like cats and dogs. The third weekend, I had to go to a hamfest. Finally on a bright sunny fourth weekend, Wayne, Jr. and Jim came in, truck, backhoe, transient, the whole works. They got the ditches dug in record time. The next day, Wayne came back with steel rods (the construction people call them "rebars") and cut and placed them in the ditch for me.

Things are looking up . . . . . or are they!

Monday morning, I called the inspection office, said I was ready for my footer inspection. (They like to see that your ditch is straight, deep enough and will hold concrete I guess)

"I'm sorry, Mr. Williams, we have no record of you ever getting a building per-

Continued on Page 19

KOH Software for the Texas Instruments 99-4/a computer.

Programs for the Radio Amateur.

* Electronics & engineering:
  HF PI calc., V/UHF propagation, Solid state network design, V/UHF tank circuit calc., Schematic draw.
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HW-9
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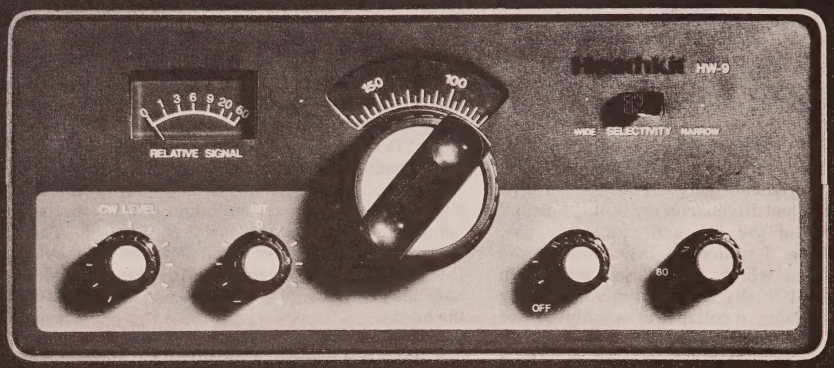

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SAVE up to $100

This certificate must accompany your order. Only one coupon per customer. Offer valid only for kit purchases from this catalog and may not be used in addition to 5% system discounts, quantity discounts or special system/combination prices. Expires in 30 days.

Customer signature _____ Date _____

This Coupon Good ONLY At HEATHKIT ELECTRONIC CENTER, 4620C WEST MARKET ST., GREENSBORO, N.C. 27407

New Director, Vice-Director Nominees Submitted for '85-86

–by Carter Cogle, K4ARO
President CVRA-SERA

The following nominations for Director and Vice Director have been submitted to our Secretary, Nita Morgan, N4DON by the respective district nominating committees:

North Carolina
Director–Ken Woodard WA4BVW
Vice Director–Calvin Dempsey WA4UQC

Tennessee
Director–Tom Park WD4KWP
Vice Director–Jean Giesler W4TYU

Virginia
Director–Lee McDaniel WB4QOJ
Vice Director–Wally Burkette WA4KXV

South Carolina
Director–Al Harney N4EOY
Vice Director–Hap Griffin WA4UMU

West Virginia
Director–Ted Wolfe WD4KHL
Vice Director–Karl Morris WB8GDY

Each of these nominees have expressed a desire to continue on, or take on the job of the offices of Director and/or Vice-Director for the 1985-1986 term of office.

If there are no further nominations from the membership at-large these persons will be named to their office. Persons wishing to nominate anyone for any of the above office have a right to do so if they are a full member and the nominee meets all the requirements.

Nominations from full members must be made on the special nomination form in this issue of the Journal, and must be mailed to our Secretary so it will arrive no later than November 30, 1984.

If additional nominations are submitted, a ballot vote for that particular district will be mailed in December.

New Business Ventures Cause Leadership Changes

–by Carter Cogle, K4ARO

The Directors of Tennessee and Virginia have undertaken new business ventures which severely restricted the amount of time they could devote to SERA. They have skillfully engineered a smooth transition of leadership to their respective Vice-directors.

I wish to take this opportunity to thank Sam Kirby and Mike Williams for the excellent service rendered to CVRA-SERA. I hope that your respective business ventures will be very successful.

I have appointed J. Tom Park, WD4KWP as the Tennessee Director and Jean Gieseler, W4TYU, Vice-director. In Virginia, Lee McDaniel, WB4QOJ is now Director and Wally Burkette, WA4KXV, has been appointed Vice-director. Both will complete the 1984 term of office.

Voting Amendment Proposed At Fall CVRA-SERA Meeting

–by Lindsay Cleveland, W4IZI

At the Annual Director's meeting of CVRA-SERA held at Shelby, NC on September 1, 1984, a motion was made to modify the Association's Constitution and By-Laws. As it happened, there was not a single Director present at the meeting. Since there was no quorum, no formal business could be transacted.

Because this situation has happened in the past, the enclosed motion seems most appropriate. While there is no intent to usurp the authority of the Directors, nor to dilute their control of the Association, it was felt that a step needed to be taken to provide for such occurrences in the future.

The attached amendments make provision for a Director to designate a Vice Director, an Assistant, or any other person to perform the Director's duties at a Board of Directors meeting.

In accordance with the provisions in the By-Laws for making revisions, this proposed amendment is being sent to all Directors. In 30 days, a ballot will be mailed to the Directors so they may cast their vote on this amendment.

As a matter of interest, a copy of this proposed amendment is being sent to the Vice-directors, officers, and committee chairmen. They, however, will not be sent ballots since they are not eligible to vote.

Proposed amendment to CVRA-SERA Constitution
Note: amended text is

ARTICLE 4: DIRECTORS — be amended to read:

The affairs of the Association shall be governed by a Board consisting of Directors, **the President, Vice President, Secretary, Treasurer, and the Chairperson of the Full Membership, Associate Membership, and Publications Committees or their elected or appointed representative at any regularly scheduled semi-annual meeting or other meeting called in accordance with these By-Laws. The Directors** shall be elected for terms of two years by the Repeater Representatives eligible to vote. Directors shall be elected for terms beginning on odd-numbered years. Election of Directors shall be by mail vote in accordance with the rules and regulations prescribed in the By-Laws. Directors shall be elected to represent repeaters within specific geographical areas as may from time to time be prescribed by the By-Laws.

Proposed amendment to CVRA By-Laws

ITEM 13 (under MEETINGS) be replaced in its entirety to read:

Those members of the Board of Directors in attendance at any regularly scheduled or properly called special meeting of the Board of Directors shall constitute a quorum for purposes of any action that might come before the body.

Miscellaneous changes

At any reference in the Constitution and By-Laws to "Directors," the wording is to be changed to "Board of Directors". When referring to a Director elected to office under a District, said reference should be changed to "District Director".

DO NOT WRITE ABOVE THIS LINE

CVRA - SouthEastern Repeater Association, Inc.

FULL REPEATER MEMBERSHIP APPLICATION FOR YEAR _____

City/Mtn (Max 14 Char)	Callsign	Input Freq.	Output Freq.	
_____	_____	_____	_____	No. 1
_____	_____	_____	_____	No. 2
_____	_____	_____	_____	No. 3
_____	_____	_____	_____	No. 4

Name two Full Member Representatives to CVRA-SERA (Each receives Journal)

Name _____ Call _____ Name _____ Call _____

Address _____ Address _____

City _____ State _____ Zip _____ City _____ State _____ Zip _____

Phone: ( ) _____ Phone: ( ) _____

ARRL Member ( ) Yes ( ) No ARRL Member ( ) Yes ( ) No

Membership: New_____ Renewal_____ Fee Enclosed ( ) Yes ( ) No Amount:_____

Repeater Sponsor _____ Date _____

Date Rptr. Placed in Service: Experimentally _____ Reg. Svc. _____

Was your freq coord? ( ) Yes ( ) No (If No, please explain) _____

ACTUAL REPEATER LOCATION: (Mtn./City)_____

Repeater Coverage: (Cities & Counties)

BASE: _____

MOBILE: _____

Transmitter _____ Receiver _____ Duplexer _____

Antenna _____ Duplexed: ( ) Yes ( ) No Split Site: ( ) Yes ( ) No

Split Site Linkage type _____ (If Radio, Frequency used) _____

Linked with any other repeaters: ( ) Yes ( ) No Linking Freq. _____

Name (if any) other repeaters linked_____

ANTENNA: Height above MSL _____ Height AAT _____ Power (ERP) _____

REPEATER: Open____ Closed____ AUTOPATCH: Open (A)_____ Private (PA)_____ Emerg. (EA)_____

If closed, Access is: Tone Burst_____ Hz, Touchtone_____ Buttons

Repeater I.D. is: CW_____ Voice_____ Rptr. control via: _____

Other information_____

Repeater Membership Fees:
All Memberships Expire Dec. 31
$8.00 annually payable Jan. 1
$6.00 during second qtr.
$4.00 during third qtr.
$2.00 during fourth qtr.

Mail Application & Check To:

CVRA REPEATER MEMBERSHIP
POST OFFICE BOX 5655
GREENSBORO, N.C. 27403

Thank you!

Please fill out this application completely and accurately. Other repeater frequency coordination may be based on information supplied. We must have accurate and complete information on all Full Member repeaters.

NOTE: Use this form if you were NOT a Full Member in 1984.

Virginia News

–by Jim Fitzgerald, K4OJE

RICHMOND – The N4HB 147.135 repeater has a new antenna and transmission line and is back in full service after sustaining a damaging direct lightening strike in August.

• • •

RICHMOND-PETERSBURG – The N4HB 444.00 70 cm repeater located in downtown Richmond, is now in operation after a period of testing. It is the third 70 cm repeater in the Richmond-Petersburg area.

• • •

The Telephone Pioneers-Virginia Amateur Radio Assn (WB4QEY) repeater on 04-64 has its new autopatch in full operation for members. RTTY is available on Tuesdays and Thursdays at 8:00 p.m.

• • •

The CVARS 145.11 repeater is providing code practice for all classes on Tuesday evenings at 7:00 p.m. On weekends, Fri-Sat-Sun, the repeater is available for RTTY after 7 p.m. (K4YPE repeater)

• • •

CHESTER – The WA4ECM repeater on 66-06 in suburban Chester is operating with a new GaAsfet preamp and has improved coverage and overcome some interference problems. This machine has a linkup with 6-meters with specifics available on the machine from Dave Murman, WA4ECM.

• • •

The 6-meter 52.43-53.43 repeater is in full operation from its location in Northwest Richmond and is providing good coverage. John Watkins, NB4B, invites all to use it.

• • •

It has been suggested to all repeater operators, private and club, that they do not specify their exact repeater locations to users (and scanner listeners) to avoid possible problems of security that occur from time to time.

• • •

RICHMOND's newest 2-meter repeater is now in operation on the coordinated frequency of 43-03 from Richmond's suburban west end. WA4JST/R.

• • •

NEWPORT NEWS – The WB4CTF 765-165 repeater has a new 850 ACC controller installed and operating. Some lightening damages have been repaired. The repeater has an open autopatch with speed dial and emergency numbers.

• • •

HAMPTON – The 13-73 machine has a new RC-850 controller in place. A new DB Products DB224 antenna has been installed to replace the old damaged unit.

• • •

Eastern Kentucky News

–by Terry West, WB4F

PIKEVILLE – K4ICN, KD4UW, N4ETG, and WB4F recently installed a new Celwave (Phelps-Dodge) Super Stationmaster on the 25-85 N4IXA repeater. Other projects include a 10-meter remote base and a link with the 147.92-147.32 Grundy, Va. repeater.

• • •

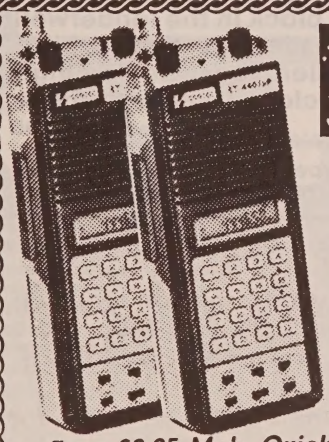
PRESTONSBURG – The 69-29 sub band repeater (K4ICN) now has an Advanced Computer Controls RC-85 repeater controller and it sounds great.

• • •

PIKEVILLE – The 19-79 N4ETG repeater will be off the air for a couple of weeks for some repair and the addition of their ACC RC-850 controller.

• • •

UPGRADES in the East Kentucky area include, KB4JEP, N4KJY, N4KJZ to Tech. N4KJQ to General and KI4NL to Advanced.



PRE-HOLIDAY Sale!

Sale Ends December 31st!

SANTEC handhelds

ST-142
For 2-Meters
259.00 SAVE! $80.95

ST-222 H/T (220-mHz) . . . $279
ST-442 H/T (440-mHz) . . . $285
NEW!!! From Santec FM/SSB
LS-202 H/T (2-Meters). . . $229

We check your Santec, charge your battery, set your clock before we ship. We offer special customer discounts on accessories.

Free $9.95 Mob. Quick Charge Cable
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FM-4033 (220-mHz). $329
FM-6033 (6-Meters) $279
FM-7033 (440-mHz). $329

FM-2033
25 Watt 2-Meter FM
265.00
with Touchtone Mike and Mobile Bracket

All KDK Models look alike, with same features. 2-M and 220 versions have 25/5-watts. 6-M and 440 versions 10-watts. All come with mobile Bracket and Touch-tone/scan microphone. KDK. . .the BEST Mobile buy on the Market today!!!

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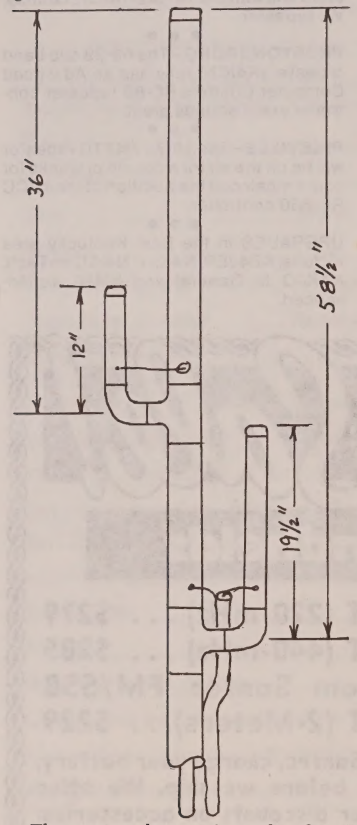
Technical

A Combination 2-Meter and 220 MHZ J-Pole

–by Walt Thompson, WV4K

This onmi-directional antenna was inspired by a 2- and 6-meter J-Pole in **The ARRL Antenna Book. The ARRL Antenna Book.** It provides some gain over a quarter-wave whip and can be grounded.



The center element is made of 3/4" copper tubing, and the stubs are made of 1/2" copper tubing. The stubs are attached with ells and tees, and the tops of all three elements are covered with end caps. All the pieces are held together with solder. The total cost of materials at the hardware store was $11.03.

The 220 antenna coax is fed down the center of the main element while the 2-meter antenna coax is fed down the outside. The exact feed points are determined experimentally to produce the minimum SWR.

Each antenna acts as if the other one isn't present. I transmit on one while receiving on the other with no difficulty. While I have not tried it, it should be possible to make a tri-bander model by putting a 432 MHz stub near the top.

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NEW! % Offset (+, −, S) stored in memory along with the frequency information.

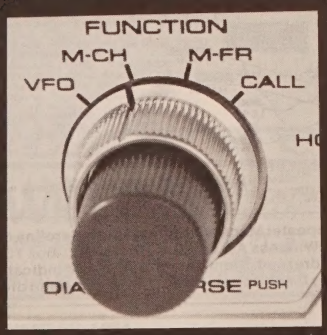
NEW! % Frequency coverage of 142.000 to 149.995 MHz for M.A.R.S. and C.A.P. usage.

NEW! % Chrome front panel with accent knobs and lighter color on case to match today's auto decor.

NEW! % Scan for signal now has 3-second delay before resume after loss of signal.

NEW! % Repositioned controls for more convenient operation.

The Exclusive KDK 6 in 1 Knob.



- Only memories with data are scanned; blanks are skipped.
- Complete memory back-up with power unplugged. Re-chargeable Ni-Cd with capability of several months back-up of memory.
- Single frequency sub-audible tone generator included as a standard feature.
- Tone unit switch on front panel to prevent "humming" on the wrong channel.
- Repeater input monitor capability with the push of a single momentary switch.
- Solid-state level meter for both output level and input level monitoring.
- User programmable initial characteristics for band limits, channel step size, etc.
- Odd repeater splits can be handled with the memory in the AxB mode.
- Programmable band-scan limits are stored in protected RAM.
- Modular construction with pluggable interconnecting wiring.
- Touch-Tone® microphone TM-2 is standard with each radio.
- Change channels, skip-scan or step up and down the band from TM-2 microphone.
- Audible beep for end-of-band or last memory location for better "eye's off" operation.

The KDK FM-2033 represents a significant advance in user convenience and simplicity of operation for the radio user. The KDK '33' series of transceivers provides excellent readability in any lighting condition for either the operating frequency or the memory channel number in use. The use of a warm orange background for the LCD displays improves the readability by providing an easy on the eyes contrast improvement.

Simplicity of operation has always been the mark of the KDK design team and the FM-2033 is no exception. From the single knob frequency and memory selection to the automatic recall of the desired repeater offset from memory, the FM-2033 continues to provide relaxed, comfortable mobile operation.

Once the 10 memory frequencies have been selected, a single knob is all that is required for operation on the standard simplex or repeater channels. Using the audible beep as the end of memory marker allows setting to a particular channel without even looking at the radio.

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The FM-2033 provides a clean 25 watt output signal across 142 - 149.995 MHz to operate in balance with most repeater signals and provide quieting on the simplex operations. M.A.R.S. (NAVY too!) and C.A.P. frequencies are also accommodated.

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Keeping in Touch From The Appalachian Trail *Chapter 2*

-by Bill Wiggins, N4BMR – Signal Mountain, Tn.

During a 450 mile hike over the southern part of the Appalachian Trail in the spring of 1983, I had excellent results keeping in touch with folks at home using my handheld transceiver and 2-meter repeaters. An article outlining those favorable results was published in the May 1984 issue of the CVRA Journal.

On April 27, 1984 I donned by hiking boots and backpack and started north on the trail from Damascus, Va. (my point of termination in 1983). Again, I had excellent results keeping in touch with home via Ham Radio. However, because of the distance involved, these were usually "one-way" messages.

The 1984 hike began with much less apprehension than experience in 1983. First, I had 450 miles of trail experience. Second, the 1983 hike had proved Amateur Radio could provide a reliable link to the "outside world" in event of an emergency. Third, I had the hiking companionship of Jack Coriell, K2BHQ, whom I had met when I hiked through the Franklin, N.C. area in 1983. We had met through Amateur Radio. Jack, an experienced backpacker who has hiked all of the Appalachian Trail from Mt. Katahdin, Maine to Roanoke, Virginia was interested in hiking the remaining segment from Roanoke to Springer Mountain, Georgia. It was only natural we made plans to hike the Damascus-Roanoke Section together. After a few planning sessions on the 147.24 (Franklin, NC) and 146.79 (Chattanooga, Tn) repeaters, we met in mid-April and made our final plans. We headed north from Damascus on Friday, April 27, 1984.

Within the first five days what I had suspected was confirmed. As we moved

Continued on Page 39

A Newcomer's Guide to Two

-by Wayne C. Williams, K4MOB

All too often, we take for granted a newcomer to two-meters already knows everything there is to know about the FM band. Many times, he receives little help in getting started. This new column, starting with this issue of the Repeater Journal will be keyed to the new FM operator, whether he be a brand new ham, or an old timer, just getting into VHF for the first time. The language will be simple, explanations will be thorough and maybe even silly to the "old timer" on two-meters. However, what I hear often on the bands as I travel around, some "old timers" might take time to review some things discussed in this column.

What You Always Wanted To Know About 2-M But Was Afraid to Ask!

A Whole New World – FM!

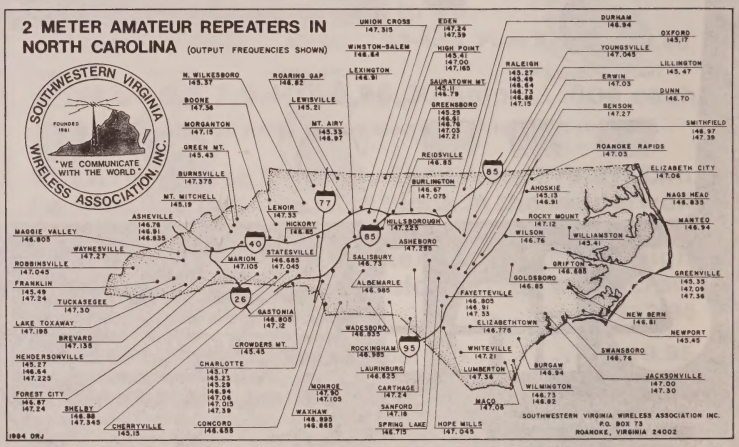
When we first turn on a VHF radio to 2-meters, we notice quite a difference in the way people talk. We find the jargon is different. We find a lot of people talking to each other as though they are friends and have met "eyeball" many times. Generally this is the case. Two meters is a "local or regional" aspect of Amateur Radio. Unlike the HF bands, we have many repeat conversations with the same Amateur. On VHF, groups of people have regular schedules in the morning, afternoon, or evening, where they converse daily.

Many VHF operators belong to the same club, meet once a month over a steak, discuss a little business and have a good time. Rarely is this possible on the HF bands.

VHF is great! It is an exciting way to get to know the hams in your com-

Continued on Page 40

REPEATER MAPS AVAILABLE FOR VA, NC, WV.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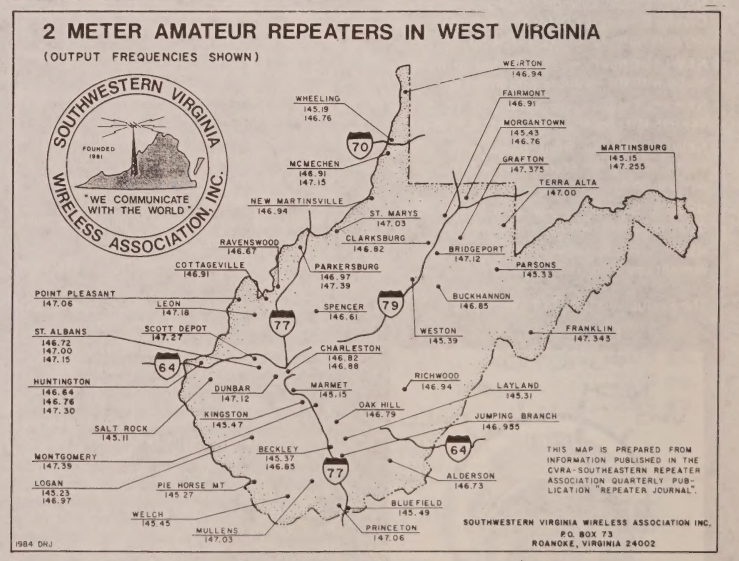
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Full Repeater Memberships To Expire on December 31

With the exception of those who have already paid their 1985 Full Membership dues, all repeater memberships will expire at midnight December, 31, 1984.

All repeater owners and club groups who operate repeaters are reminded to watch for your renewal application in the mail late this month. All repeater representatives who were Full Members in 1984 will be mailed a 1985 renewal form.

Other repeater owners who were not Full Member repeaters in 1984 may use a special Full Membership application printed elsewhere in this issue of the Journal.

Please Note: If you WERE a member in 1984, do not use the application in the Journal, only if you were NOT a member in 1984 should this special application be used.

Honor Roll

Again the very popular and very competitive Repeater Journal Honor Roll will be presented in the FEBRUARY issue.

Repeater groups who renew their repeaters and their application and fees arrive at the CVRA-SERA post office box post marked no later than December 31 will be eligible to be listed in the honor roll. (Groups who have already paid for 1985 will also be listed).

Repeater membership is available to owners or operators of repeaters. The annual fee is $8.00. There will be two representatives named on the application. These two persons are considered Full Member representatives for your repeater. They have voting rights in the organization, and each will receive the Journal.

There are two ways of membership for clubs with multiple repeaters. (1) One application, two representatives ($8.00) and list ALL repeaters. (2) Application for EACH repeater, two representatives for EACH application, and $8.00 for each application.

Full member repeaters in the Journal index have NO "N" beside their listing. Repeaters marked "N" are NOT Full Members of CVRA-SERA.

Repeater users and club members are urged to suggest that their home repeater owners join CVRA-SERA and support the organization.

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Winston-Salem CAP Assists ARES At Hospital Fire

Winston-Salem, Sun 12 Aug: A normal, albeit rainy, Sunday night at Forsyth Memorial Hospital. CAP Cadet Mike Fenning and his Mom and Dad were there – he was about to become big brother of a baby sister. During the evening, a problem in the electrical system plunged the hospital into darkness and smoke. It also wiped out the in-house phone system. Emergency power had the darkness enlightened within a few minutes, but considerable smoke inundated the nursery and intensive care units necessitating evacuation to Baptist Hospital and to the Red Cross. The phone system remained dead.

The Amateur Radio Emergency Service of Forsyth County was alerted to provide help in communications — this alert included many of our CAP communicators who are also active in ARES. Moments later, Boyce Rogers (Red Dog 383/WB4WOM) alerted the remaining CAP members.

Fred Horton (RD 369/NA4P) provided a link at Baptist Hospital to which many of the ICU and Infant ICU patients were evacuated. Cadet Daryl Shaw (RD 375/KB4GVU) joined to help there later. Jack Moorefield (Blue Dog 2/N4INE) was working at the evacuation dispatch at Forsyth. He and Rogers were providing the interface between amateur and CAP communications. Bill Batts (RD 361/KB4EAT) was acting net control for the CAP. Also supporting were Dick and Kathy Crapse (RD 378) and Cadet Rich Crapse (BD 341), Kathy Dameron (BD 371) and Dan Renfro (RD 227/WA4PXV).

Amidst the confusion, Cadet Fenning's baby sister arrived.

West Virginia QSO Party Sked Jan. 26

–by Terry Sanner, WD4ALW

West Virginia QSO Party, sponsored by the West Virginia State AR Council, Runs from 1700Z Jan. 26 until 1700Z Jan. 27. Single operator only. Exchange signal report, serial number and QTH (county for WV stations; state or country for others).

Suggested frequencies: phone – 10 kHz up from lower General band edges; cw – 35 kHz up from low end; Novice – 35 kHz from lower band edge. Count 1 point per QSO.

WV stations multiply by total WV counties, states and countries worked; others multiply by total WV counties worked. Multiply score by 1.5 if running 200 W or less.

Mail logs by Feb. 11 (include large s.a.s.e. for results) to **K8BS, P.O. Box 1694, Charleston, WV 25326**

Armfield & Nelson Win

Columbus Ohio, Fri 10 Aug: Gwyn Armfield (KA4SJV) and Keith Nelson (KB4DJU) scored wins at the National Aviation Explorer Fly-in held at Ohio State University in Columbus OH. Both young hams are members of the Winston-Salem Civil Air Patrol Squadron and of Aviation Explorer Post 82. Armfield won first place in the Simulated Computed Air Navigation contest and in the Aircraft Recognition contest. Nelson won third place in the Model Rocket competition. They received their trophies at the final banquet.

Both of these young hams are involved with Aviation Exploring and with Civil Air Patrol in Winston-Salem NC; both operate CAP stations in addition to their amateur radios; both are members of ARES of Forsyth County. Armfield (16) is junior at Reynolds High School in Winston-Salem and holds a general class license. Nelson (14) is in the 8th grade at North Davie JHS near Mocksville NC. He holds a Technician License.

The Simulated Computed Air Navigation event which Armfield won consisted of planning a cross country flight and then answering questions about the flight based on the planning and computations. The Aircraft Recognition contest required him to correctly identify aircraft from projected pictures. The Model Rocketry event required Nelson to estimate the flight time and trajectory of a model rocket he had built.

Some 3800 young people (14-20 yrs) attended this first National Explorer Conference at OSU. Exploring is the young adult division of Boy Scouts of America and concentrates its program on career exploration. About 180 of these were in Aviation Exploring

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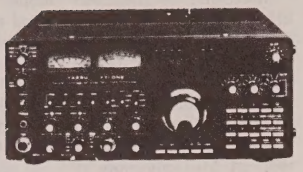
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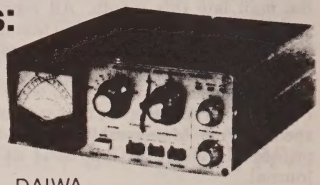
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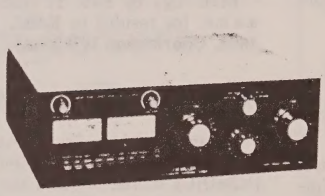
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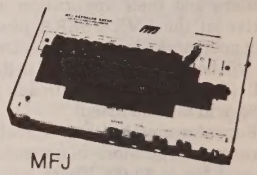
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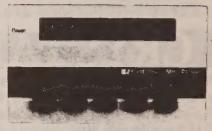
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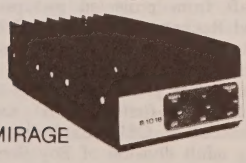
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73, THE GISMO GANG

Dream Tinged with Nightmares

Continued from Page 9

mit, are you sure you've got one," she purred.

I told here I had something with their name on it, a big white card that said PERMIT in Large letters and I was under the impression that was a building permit. I even gave her the permit number . . . . . Number 33580.

"I'm sorry Mr. Williams, we have no record."

Again I panicked (You notice, I've been doing a lot of that lately). Then I asked here if all the paperwork came in triplicate. She said yes. I said, well, I've got all three copies.

"Oh!" she said, "We must have given all the paperwork to your son when he came over."

"I guess you did," I said.

She was very nice and apologetic. She said she would call one of the inspectors in the field and get him over that afternoon, and he would pick up the papers before he left.

Things are looking up!

He came, inspected the footers and with only one small suggestion of moving one board, passed us with flying colors, (or dust . . . it rained that evening and we couldn't pour the concrete).

Finally Wednesday afternoon, Jim and Wayne, Jr. came rolling up at 4:45, just as I got home from work. They said the concrete truck was on the way and would be there at 5:00 p.m. At 5:15 p.m. Wayne went looking for the truck. The poor fella had missed Endicott Road and was running up and down Sandy Ridge road trying to find us.

All worked well anyhow, the truck came in, Wayne and Jim, worked like the professionals they were and my footers of five yards of fresh concrete were poured, smoothed and ready to set up within 30 minutes.

I called the Building Supply place and told them to deliver my concrete blocks and treated lumber Thursday. They did, except for a small problem. They brought 35 end blocks and were short 29 regular blocks. No problem, they came back Friday morning, picked up the end blocks and dropped off my regular blocks.

Things are looking up!

When I got home Friday afternoon I was chomping at the bit to get started. (My wife Gerry was amazed, I didn't even take my afternoon nap.) Actually I kinda wondered how this old 47-year-old body was going to take the bending and laying of concrete blocks after years of desk work and no manual labor (except climbing stairs and raising my fork at the dinner table). Well Friday night, I got an inkling of what to expect.

I was so sore, my legs hurt so bad that I fell into the bed at 9:00 p.m.

Saturday morning I dragged out of bed, stiff as a rail, but the excitement of finally getting going on my new ham-shack overcame the pain. I spent the day laying concrete block and finally Saturday night, I finished. Sunday, I could rest!

The rains came Saturday night. You guessed it. The morter mix in the cracks at the top row of blocks got washed out. So Sunday, I mixed a small batch, and went around patching the top row again.

Monday, the sun was out . . . bright, I was on vacation the remainder of the week, and were going to get going. Son number 3, Chris and I got started at 7:00 a.m. The mud was three inches deep around the foundation and inside, but that didn't stop us. We set up sawhorses in the driveway and got the 2x8's going. By evening, we had all the floor joists down and were ready to lay the sub-floor. Tuesday things dried out a little and we started the sub-floor. I nailed while Chris sawed 2x4 studs. By Tuesday evening we were rolling, floor on, studs up. I called the building supply place and said send the Truss man up so we could get an exact measurement on the trusses (a fancy word for rafters . . . custom built).

The man came out promptly the next day, measured and said he'd have them ready in about three weeks.

THREE WEEKS! I need them by Friday. There was no way, the man explained they were way behind and I'd just have to wait unless I wantd to saw and build my own. I decided to wait. Within another day, we had all windows, doors and other necessities roughed out, all braces nailed into place, so nothing to do but fill up the holes and around the foundation and wait for the trusses.

I sat, waited, piddled and fussed and lo and behold, here came the trusses on a Thursday. Just TWO weeks after ordering them. The only problem now, I couldn't get started. I was due to leave for the Shelby Hamfest on Friday, so the building would have to wait until Tuesday.

Tuesday afternoon, my extra help didn't show up and we didn't get started on them until Friday afternoon. By Saturday night, the trusses were up, we had nailed on 18 sheets of plywood on the rooft, braced them, and gotten 2 squares of shingles nailed down.

The next few days went smoothly. We got the roof on, windows in, outside insulation board on and I was ready to call for the Building inspector to come out for the "framing inspection."

Things were really looking up . . .??

I called them. Announced "ready for inspection". The young lady asked if I were putting up insulation and I told her that I was.

"Well I'm sorry, Mr. Williams, we don't show you as having filed for a certificate of compliance in your insulation job."

"You don't have WHAT?," I cried!!!

After about 15 minutes the lady (I guess she hated to hear a grown man cry) told me she would send me the forms in the mail, and meanwhile, I could start putting up my insulation. I felt better, but something kept knawing at me through the whole weekend.

"You gotta tape that insulation and make it absolutely weather tight", a visitor on the job site said.

I sent Chris to one of the local Building Supply places in Greenboro that was open on Sunday and told him to ask them what kind of tape do you use, and to buy several rolls.

Chris came back in about an hour with $35.00 worth of duct tape.

"Duct tape?" I asked.

That's what he said, Dad!," Chris growled.

I thought, kinda expensive stuff. Anyhow, we got up all the wall insulation and taped EVERYTHING . . . . tight! Monday morning I got up, went out there and guess what. Duct tape doesn't stick to paper and wood, about half of it was hanging, the rest popping off the insulation.

I went to work Monday, still with that knawing feeling I had when I talked to the girl at the inspections office Friday.

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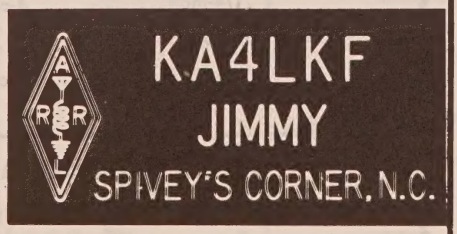

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One Last Time . . .

–by Walt Thompson, WV4K

The FCC took to the field for one last time when the Norfolk office gave Amateur exams at Greensboro, N.C. on October 2. By the time you read this, they will have given the last Amateur exams at the Norfolk (5th District) office. From now on, it will be the Volunteer Examiner Program.

Volunteer Examiners from Greensboro and Raleigh assisted in giving the exams. A member of the High Point VEC board was also present. This was an opportunity for all to observe how things are done by the Commission without the pressure of taking an exam. Things look a lot different when the pressure is off.

There were lots of comments by applicants participating in this final examination schedule in the field by the FCC. One group thought that exams under Volunteers would be too easy, while another contingency thought that they would be impossibly hard.

The area VEs intend to give the exam in the same manner as the Commission. The presence of Amateur VEs at the FCC sponsored examination at Greensboro was one way to insure that the examinations sessions will continue on an even keel.

It is becoming increasing evident that the applicants who do not pass are likely to be those who have not prepared themselves for the new questions published by the Commission. There are several study guides based on the new questions which should get you ready to upgrade under the Volunteer Examiner Program.

Those who study are passing the exams, those coming unprepared are failing. This is the consensus of all VEs who have given exams to this date.

Area 4 Volunteer Examiner Coordinator

A memorandum of Agreement was signed on July 30, 1984 between the FCC and the Charlotte VEC, for Volunteer Examiner Coordinator for Area 4. The agreement was signed by Edward J. Minkel for the FCC, and Mary E. Weddle, WC4T, for the Charlotte VEC. The Charlotte VEC is now actively recruiting Volunteer Examiners.

Any Radio Amateur holding an Extra or Advanced Class License who is interested in becoming a Volunteer Examiner should contact the Charlotte VEC at (address shown above.)

REMEMBER: You can be accredited with as many VEC's as Volunteer Examiner as you wish. There are no limitations to being registered and accredited with several VEC's.

For more information, write Mary E. Weddle, WC4T, 227 Bennett Lane, Charlotte, N.C. 28213.

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3.20 /4.80	MORGANTON	NC
3.22 /4.82	GIBSONVILLE	NC
	KNOXVILLE	TN
	ALEXANDRIA	VA
3.28 /4.88	WSTFLD/SAUTN MT	NC
3.30 /4.90	COLUMBIA	SC
	CHATT/SIGNAL MT	TN
3.32 /4.92	CHAPEL HILL	NC
3.34 /4.94	GREENEVILLE	TN
	ROANOKE/POOR MTN	VA
3.36 /4.96	CHERRYVILLE	NC
	GOLDSBORO	NC
3.38 /4.98	FALLS CHURCH	VA

440 MHZ

9.25 /6.25	NORFOLK	VA
9.25 /6.27	ALEXANDRIA	VA
9.25 /7.25	CHATT/SIGNAL MT	TN
7.00 /2.00	WINCHESTER	VA
7.05 /2.05	MEDINA	TN
7.10 /2.10	MILAN	TN
7.25 /2.25	COVINGTON	VA
7.50 /2.50	KNOXVILLE	TN
	ROANOKE/POOR MT	VA
7.75 /2.75	ROANOKE	VA
7.80 /2.80	FRANKLIN	TN
	MEMPHIS	TN
7.90 /2.90	HIGH POINT	NC
8.00 /3.00	MEMPHIS	TN
8.10 /3.10	LYNCH/BLACK MT*	EK
8.30 /3.30	GATLBG/COVE MT	TN
8.40 /3.40	MEMPHIS	TN
8.50 /3.50	PARIS/GROVE HL	TN
	TYSONS CORNER	VA
8.55 /3.55	WILKESBORO	NC
8.65 /3.65	MT MITCHELL	NC
	HAMPTON	VA
8.70 /3.70	LOCUST	NC
8.75 /3.75	ALAMO	TN
	FINCASTLE	VA
8.30 /3.80	MANASSAS	VA
8.80 /3.80	NORTHWEST/SE VA	VA
8.875/3.875	CHAPEL HILL	NC
	CAESARS HEAD	SC
8.90 /3.90	SALUDA	VA
8.95 /3.95	WILLIAMSBURG	VA
9.00 /4.00	RICHMOND	VA
9.05 /4.05	WAYNSBR/AFTON MT	VA
9.10 /4.10	HILLSBOROUGH	NC
	COLUMBIA	SC
	CHATTANOOGA	TN
9.15 /4.15	ATLANTA	GA
	N. AUGUSTA	SC
	LEXNGTN/COLE MT	VA
	SPRINGFIELD	VA
9.20 /4.20	AHOSKIE	NC
	MORRISTOWN	TN
9.25 /4.25	CHARLOTTESVILLE	VA
9.30 /4.30	FISHERVILLE	TN
	HOOVER(ALA)	TN
	KNOXVILLE	TN
	WAYNESBORO	VA
9.35 /4.35	GALLATIN	TN
	LYNCHBURG	VA
9.40 /4.40	FAYETTEVILLE	NC
	OAK RIDGE	TN
	PETERSBURG	VA
9.45 /4.45	GALLATIN	TN
	FALLS CHURCH	VA
9.50 /4.50	MEMPHIS	TN
	LYNCHBURG	VA
9.55 /4.55	NASHVILLE	TN
	ALBERTA	VA
9.60 /4.60	CHARLOTTE	NC
	KNOXVILLE	TN
	ALEXANDRIA	VA
9.65 /4.65	GREENEVILLE	TN
	RICHMOND	VA
9.675/4.675	NASHVILLE	TN
9.70 /4.70	ROCKY MOUNT	NC
	WILMINGTON	NC
	MT PLEASANT	SC
	KNXVLE/HOUSE MT	TN
	MORGANTOWN	WV
9.75 /4.75	ROCK HILL	SC
	TYSONS CORNER	VA
9.775/4.775	NASHVILLE	TN
9.80 /4.80	GREENVILLE	NC
	MEMPHIS	TN
	BECKLEY/EOC	WV
	MORGANTOWN	WV
9.85 /4.85	CHARLOTTE	NC
	PETERSBURG	VA
9.875/4.875	NASHVILLE	TN
9.90 /4.90	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
	WILSON	NC
9.95 /4.95	VIRGINIA BEACH	VA
9.975/4.975	NASHVILLE	TN
3.80 /8.80	SUMMERVILLE	SC
4.225/9.225	MANASSAS	VA
4.40 /9.40	MEMPHIS	TN
4.90 /9.90	WOODBRIDGE	VA
4.925/9.925	BLUEMONT/WINCH	VA

10 METER S

9.52 /9.62	ATLANTA	GA
	WILKESBORO	NC
	MEMPHIS	TN
9.54 /9.64	CHAPEL HILL	NC
9.58 /9.68	STERLING	VA

6 METER S

2.58 /2.48	FAIRFAX	VA
2.525/2.525	HENDERSONVILLE	NC
2.76 /2.525	KNOXVILLE	TN
2.01 /3.01	HENDERSONVILLE	NC
	NEWPORT	NC
	CHATTANOOGA	TN
	MEMPHIS	TN
	ABINGTON	VA
	LEXNGTN/COLE MT	VA
	NORTN/HIGH KB	VA
2.03 /3.03	CHARLOTTE	NC
	ROANOKE RAPIDS	NC
2.05 /3.05	COPE	SC
2.13 /3.13	ALEXANDRIA	VA
	DANVILLE(DCC)	VA
2.15 /3.15	KNOXVILLE	TN
	ROANOKE/POOR MT	VA
2.17 /3.17	ST MARYS/BENS R	WV
2.25 /3.25	KNOXVILLE	TN
	RIDGEWAY	VA
2.35 /3.35	CARY	NC
	KNOXVILLE	TN
2.41 /3.41	PICKENS	SC
2.43 /3.43	RICHMOND	VA
2.47 /3.47	HICKORY	NC
2.67 /3.67	STATESVILLE	NC

CVRA-SERA REPEATER INDEX LISTINGS BY CITY-BY-STATE

NORTH CAROLINA REPEATERS

2 METERS

AHOSKIE	WB4YNF	144.53	145.13	N	A
AHOSKIE	WA4ZGQ	146.31	146.91	N	PA
ALBEMARLE	K4OGB	146.385	146.985		
ASHEBORO	WD4AIB	147.855	147.255		PAL
ASHEVILLE	WA4QCO	146.235	146.835		A
ASHVL/MT PISGAH	WA4BVW	146.16	146.76		
ASHVL/SPIVEY MT	W4MOE	146.31	146.91		PA
BENSON	WR4ARL	147.87	147.27	N	PA
BOONE	WA4KDB	147.96	147.36		
BREVARD/TRNS CTY	N4GTG	147.735	147.135		
BURGAW	K4LZY	146.34	146.94		
BURLINGTON	WB4ZIN	146.07	146.67		A
BURLINGTON	W4VGZ	146.475	147.075	N	EA
BURLINGTON	WA4HBQ	147.675	147.075	N	EA
BURNSVILLE	WA4LLR	147.975	147.375		A
CARTHAGE	W4NIW	147.84	147.24		EA
CHARLOTTE	KE4ZC	144.57	145.17		
CHARLOTTE	W4BFB	144.63	145.23		
CHARLOTTE	WD4JWO	144.69	145.29		
CHARLOTTE	KA4HNP	145.00	147.50	N	NB
CHARLOTTE	W4BFB	146.175	146.775		R
CHARLOTTE	W4BFB	146.34	146.94		A
CHARLOTTE	W4CQ	146.46	147.06	N	A
CHARLOTTE	WB4KPF	147.615	147.015	N	PA
CHARLOTTE	WD4PLY	147.99	147.39		PA
COLUMBIA	K4ITL	144.61	145.21	N	C
CONCORD/KANNAP.	K4CEB	146.055	146.655		A
CROWDERS MT	WD4PLY	144.85	145.45		
DUNN	WB4FXM	146.10	146.70		PA
DURHAM	WA4BFT	146.34	146.94	N	A
EDEN/MAYODAN	WA4ACP	147.84	147.24	N	
EDEN/STONEVILLE	WA4QBG	147.99	147.39		
ELIZABETH CITY	WA4VTX	146.46	147.06		A
ELIZABETHTOWN	N4DHW	146.175	146.775	N	
ERWIN	WR4ALY	146.43	147.03	N	
FAYETTEVILLE	N4EWG	146.205	146.805		
FAYETTEVILLE	WB4YZF	146.31	146.91		
FAYVLLE/FT BRAGG	W4LPL	147.93	147.33		
FISHERS PK/WS	W4HKB	144.87	145.47		P
FOREST CITY	W4TMT	146.07	146.67	N	A
FOREST CITY	WA4BKU	147.84	147.24	N	
FRANKLIN	W4GHZ	147.84	147.24		
FRNKLN/COWEE BLD	N4AC	144.89	145.49		
GAST/SPCR MT	W4REW	147.72	147.12		A
GASTONIA	K4ZFD	146.205	146.805	N	L
GOLDSBORO	K4CYP	146.25	146.85		A
GREEN MT	K4ITL	144.83	145.43		L
GREENSBORO	N4AZM	144.65	145.25	N	A
GREENSBORO	K4SNI	146.01	146.61		A
GREENSBORO	WA4MSS	146.16	146.76		
GREENSBORO	WD4IPZ	147.63	147.03		PA
GREENSBORO	W4BUZ	147.81	147.21	N	
GREENVILLE	WA4DAN	144.75	145.35		L
GREENVILLE	W4AMC	147.96	147.36		
GREENVL/ESTN NC	W4GDF	147.69	147.09		
GRIFTON	W4NBR	146.085	146.685		
HENDERSONVILLE	WB4YAO	146.04	146.64	N	L
HENDSVL/PINCK MT	WA4KNI	144.67	145.27		A
HENDSVL/STONY MT	WA4KNI	147.855	147.255		A
HICKORY/BRT. MT	WA4MDW	146.25	146.85	N	
HIGH POINT	N4XO	144.81	145.41	N	
HIGH POINT	WB4IKY	146.40	147.00		LA
HIGH POINT	WB4IKY	147.60	147.00		LA
HIGH POINT	KA4DHP	147.765	147.165		PA
HILLSBOROUGH	WA4WTX	147.825	147.225		A
HILLSVILLE	WD4BTS	147.975	147.375	N	A
HOPE MILLS	WB4TRW	146.445	147.045	N	
JACKSONVILLE	WD4FVO	146.40	147.00		PA
JACKSONVILLE	WR4ATW	147.90	147.30	N	
LAKE TOXAWAY	K4MSK	147.795	147.195		EA
LAURINBURG	K4QWK	146.025	146.625		A
LENOIR/HIBRITN	KN4K	147.93	147.33		
LEWISVILLE	N4GGK	144.61	145.21		PA
LEXINGTON	K4IZM	146.31	146.91		PA
LILLINGTON	WA4FKI	144.87	145.47	N	
LUMBERTON	WB4MDI	147.96	147.36		
MACO	WA4LED	147.66	147.06		
MADISON	KA4YFF	146.295	146.895		R
MAGGIE VALLEY	W4HCY	147.405	146.805		
MANTEO	K4UOR	146.34	146.94		PA
MARION/OLD FORT	KA4DEC	147.705	147.105		
MAYODAN	N4GWZ	144.55	145.15	N	C
MONROE	K4BGU	147.30	147.90	N	NB
MONROE/UCARS	K4JCK	147.705	147.105		A
MOORESVILLE	WB9GMO	144.75	145.35		AP
MORENTN/HI PK	WB4UDS	144.55	145.15	N	
MORGANTON	K4VLY	147.75	147.15		
MT AIRY	WA4ZAS	146.37	146.97		EA
MT AIRY-RTTY	WA4ZAS	146.34	146.94		R
MT AIRY/TRNR MT	KD4J	144.73	145.33		
MT MITCHELL	WA4BVW	144.59	145.19		
N. WILKESBORO	N4AGN	144.77	145.37		LPA
NAGS HEAD/BODIE	KE4PB	146.235	146.835	N	
NEW BERN	WD4JMS	146.01	146.61		A
NEWPORT	K4GRW	144.85	145.45		AL
OLD FORT	KA4ROZ	146.385	146.985	N	C
OXFORD	N4EKK	144.57	145.17		T
RALEIGH	N4BEA	144.67	145.27		PAL
RALEIGH	N4BEA	144.89	145.49		PA
RALEIGH	W4DW	146.04	146.64		A
RALEIGH	K4BWC	146.13	146.73		A
RALEIGH	K4ITL	146.28	146.88		
RALEIGH	K4ITL	147.75	147.15		PA
REIDSVILLE	K4YFT	146.25	146.85		
ROANOKE RAPIDS	K4PUV	147.63	147.03		
ROARING GAP	WB4PZA	146.22	146.82		
ROBBINSVILLE	WD4CNS	146.445	147.045		
ROCKINGHAM	WA4ULA	146.355	146.955	N	
ROCKY MOUNT	WB4WAA	147.72	147.12		A
SALISBURY	W4EXU	146.13	146.73		
SANFORD	WB4EJJ	147.78	147.18		A
SAURATOWN MT	N4HVQ	144.51	145.11		L
SAURATOWN MT	WB4IKY	146.19	146.79		A
SHELBY	WD4DJA	146.28	146.88	N	
SHELBY	WD4DJA	147.945	147.345		A
SMITHFIELD	KD4JQ	146.37	146.97		A
SMITHFIELD	W4MKL	147.99	147.39	N	PA
SPRING LAKE	WB4KDC	146.115	146.715	N	
STATESVILLE	AI4O	146.085	146.685		PA
STATSVL/ASBRY MT	WA4JRL	147.645	147.045		
SWANSBORO	KO4S	146.16	146.76		
THOMASVILLE	WD4LNW	147.435	146.835		A
TRENTON	K4ITL	144.71	145.31	N	C
TUCKASEGEE	W8OMV	147.90	147.30	N	
UNION CROSS	WA4RBW	147.915	147.315		
WADESBORO	WA4IAT	146.235	146.835	N	
WASHINGTON	WA4TEP	147.945	147.345	N	C
WAXHAW	WB4OOA	146.295	146.895	N	PA
WAXHAW	WA4ZRS	147.465	146.865		A
WAYNESVILLE	N4SM	147.87	147.27		PA
WHITEVILLE	K4MSD	147.81	147.21		
WILLIAMSTON	KA4KNU	144.81	145.41		
WILMINGTON	W4VNK	146.13	146.73		EA
WILMINGTON	K4GMP	146.22	146.82		EA
WILMINGTON	WD4HMA	147.78	147.18	N	C
WILSON	WB4THL	146.16	146.76		
WINSTON-SALEM	WA4GIC	146.04	146.64		A
YOUNGSVILLE	WD4AUI	146.445	147.045	N	

220 MHZ

ASHEVILLE	NC4N	223.00	224.60		
ASHVL/MT PISGAH	WA4BVW	222.34	223.94		
CHAPEL HILL	K2MZ	223.32	224.92	N	C
CHARLOTTE	KE4ZC	222.80	224.40		
CHARLOTTE	WB4KPF	223.08	224.68	N	LA
CHERRYVILLE	WB4UDS	223.36	224.96	N	
FAYETTEVILLE	W4EHF	222.42	224.02	N	
GIBSONVILLE	WB4IKY	223.22	224.82		R
GOLDSBORO	WD4OYO	223.36	224.96	N	
HICKORY	WA4MDW	222.42	224.02	N	

HIGH POINT	K4AZA	222.32	223.92	LPA
HILLSBOROUGH	WA4WTX	222.34	223.94	L
LENOIR/HIBRITN	KN4K	222.56	224.16	
LINWOOD	KA4HUV	222.38	223.98	N
LOCUST	WA4ZIA	222.40	224.00	PA
MORGANTON	WB4PML	223.20	224.80	N
MT MITCHELL	WA4BVW	222.94	224.54	
RALEIGH	WA4PEN	223.04	224.64	N
ROCKY MOUNT	KA4DAP	222.36	223.96	N
SALISBURY	W4EXU	223.16	224.76	
STATESVILLE	WA4PVI	222.70	224.30	N
WINSTON-SALEM	WA4YHH	223.04	224.64	N
WSTFLD/SAUTN MT	W4RXG	223.10	224.70	R
WSTFLD/SAUTN MT	W4RXG	223.28	224.88	

440 MHZ

AHOSKIE	WB4YNF	449.20	444.20	N C
ASHVL/MT PISGAH	WA4COS	449.90	444.90	N
CHAPEL HILL	K2MZ	448.875	443.875	N C
CHARLOTTE	W4BFB	449.60	444.60	
CHARLOTTE	W4CQ	449.85	444.85	N
FAYETTEVILLE	KB4ZW	449.40	444.40	
GREENSBORO	WB4HZI	449.90	444.90	N
GREENVILLE	AI4J	449.80	444.80	N
HIGH POINT	K4AZA	447.90	442.90	L
HILLSBOROUGH	WA4WTX	449.10	444.10	PA
LOCUST	WA4LBT	448.70	443.70	
MT MITCHELL	N4DWU	448.65	443.65	C
ROCKY MOUNT	N4JEH	449.70	444.70	C
WILKESBORO	KC4XE	448.55	443.55	L
WILMINGTON	KB4BR	449.70	444.70	C
WILSON	NE4J	449.90	444.90	N C

10 METERS

CHAPEL HILL	K2MZ	29.54	29.64	N C
WILKESBORO	KC4XE	29.52	29.62	L

6 METERS

CHARLOTTE	KE4ZC	52.03	53.03	
HENDERSONVILLE	WB4YAO	52.01	53.01	N NB
HENDERSONVILLE	WB4YAO	52.525	52.525	N RB
HICKORY	WA4MDW	52.47	53.47	N
NEWPORT	K4GRW	52.01	53.01	N P
ROANOKE RAPIDS	K4PUV	52.03	53.03	C
STATESVILLE	WA4WRS	52.67	53.67	N

SOUTH CAROLINA REPEATERS

2 METERS

AIKEN	N4ADM	147.885	147.285	
ANDERSON	N4SZ	146.37	146.97	PA
ANDSN/SASFRAS MT	W4FVV	146.19	146.79	
BAMBERG	WA4DFP	144.73	145.33	N
CAROWINDS	AA4SC	147.78	147.18	
CHARLESTON	WB4URP	144.65	145.25	N
CHARLESTON	K4ILT	146.16	146.76	N PA
CHARLESTON	W4IVE	146.19	146.79	N
CHARLESTON	K4LWS	147.90	147.30	A
CHARLSTN/LDSN	WB4LET	147.87	147.27	PA
CHELSEA	KB4GY	146.01	146.61	
CHERAW	KA4ABW	147.135	147.735	PA
COLUMBIA	K4AVU	146.28	146.88	
COLUMBIA	K4LNU	146.34	146.94	
COLUMBIA	K4LNU	147.96	147.36	PA
DILLON/PEE DEE	NN4N	146.145	146.745	EA
FLORENCE	W4ULH	145.01	PKET	
FLORENCE	W4ULH	146.25	146.85	A
FLORENCE	WA4ISM	146.37	146.97	PA
FT JACKSON	WB4OCB	146.16	146.76	
GASTON	WB4NEP	144.61	145.21	PA
GEORGETOWN	WD4DMI	147.975	147.375	N
GOOSE CREEK	WD4NUN	147.675	147.075	A
GOOSE CREEK	W4NAT	147.78	147.18	N
GREENVILLE	W4AZT	146.10	146.70	A
GREENVILLE	K4LEO	147.375	147.975	N NB
GREENWOOD	WB4UGA	147.765	147.165	N PA
GREENWOOD/HODGES	KB4YF	144.53	145.13	
GREER	W4IQQ	146.34	146.94	N
GRNVLE/CSRS HD	W4NYK	146.01	146.61	
GRNVLE/PARIS MT	W4NYK	146.22	146.82	PA
HILTON HEAD	KB4GY	147.84	147.24	P
INMAN	WD8OXE	144.87	145.47	
LANCASTER	W4PAX	146.10	146.70	
LANCASTER	WB4BGF	147.84	147.24	
LAURENS	KA4LBI	146.25	146.85	N A
LEXINGTON	WR4AGK	147.255	146.835	N NB
LEXINGTON	KA4FEC	147.99	147.39	
LITTLE MT.	K4AVU	147.81	147.21	
MARION	W4YLT	146.40	147.00	N EA
MT PLEASANT	K4ESG	146.385	146.985	
MYRTLE BEACH	WD4JMT	146.01	146.61	A
MYRTLE BEACH	WA4YGE	147.72	147.12	N
MYRTLE BEACH, N	WA4JYR	147.63	147.03	N PA
N. AUGUSTA	K4FKJ	146.13	146.73	
NEWBERRY	KB4CO	146.085	146.685	
ORANGEBURG	WR4AQY	147.69	147.09	N A
PICKENS	WB4YXZ	146.40	147.00	PA
PROSPERITY	WB4OCB	147.84	147.24	
RKY RDG/WALLACE	KA4ABW	144.89	145.49	
ROCK HILL	KA4RFA	144.71	145.31	N LPA
ROCK HILL	K4YTZ	146.325	146.925	PA
ROCK HILL	K4YTZ	146.43	147.03	PA
ROCKY SPUR	KS4I	147.885	147.285	
SENECA/LONG MT	WA4JRJ	147.87	147.27	N
SIMPSONVILLE	WA4LDP	146.13	146.73	
SIMPSONVILLE	WA4SDT	147.75	147.15	N R
SPARTANBURG	WD8OXE	147.69	147.09	PA
SUMTER	WS4P	146.04	146.64	
SUMTER	WA4UMU	147.615	147.015	A
SUMTER	W4VFR	147.66	147.06	N
WHITE HALL	W4BWZ	146.31	146.91	

220 MHZ

COLUMBIA	N4EOY	222.30	223.90	
COLUMBIA	N4EOY	223.30	224.90	
EASLEY/SASFRS MT	KJ4X	222.46	224.06	
PICKENS/CSRS HD	WB4QHF	222.54	224.14	PA

440 MHZ

CAESARS HEAD	WB4LZQ	448.875	443.875	N
COLUMBIA	KC4YI	449.10	444.10	
MT PLEASANT	N4DRU	449.70	444.70	
N. AUGUSTA	WB4OCB	449.15	444.15	
ROCK HILL	KA4RFA	449.75	444.75	N LPA
SUMMERVILLE	WA4HNK	443.80	448.80	N NB

6 METERS

COPE	N4HSN	52.05	53.05	
PICKENS	WB4YXY	52.41	53.41	C

VIRGINIA REPEATERS

2 METERS

ACCOMAC	WA4TVS	147.855	147.255	EA
ALEXANDRIA	N4FSC	144.71	145.31	M PA
ALEXANDRIA	WD4PDP	146.055	146.655	M PA
ALEXANDRIA	W4HFH	147.915	147.315	M L
ALTAVISTA	WA4ISI	146.055	146.655	PA
ARLINGTON	N4EFJ	144.87	145.47	M
ARLINGTON	WA4YVM	146.445	147.045	M T
BARREN SPRINGS	K4HZS	146.07	146.67	
BEDFORD	WB4JBJ	147.705	147.105	LR
BLACKSBURG	AB9I	146.115	146.715	
BLAND	N4AZJ	144.75	145.35	N L
BLUEFIELD	W8MOP	144.89	145.49	A
BLUEMONT/WINCH	WA4TSC	147.90	147.30	
BRISTOL	K4ILW	146.07	146.67	N A
BRISTOL	WDECYZ	146.28	146.88	N
BROMLEY MT	WR4ATJ	146.01	146.61	N
CHARLOTTESVILLE	WA4TFZ	146.16	146.76	
CHARLOTTESVILLE	WA4TFZ	146.325	146.925	
CHESAPEAKE	K4NDH	144.69	145.29	EA
CHESAPEAKE	N4GSP	146.01	146.61	
CHESAPEAKE	N4SD	146.19	146.79	A

CHESTER	WA4ECM	147.66	147.06	PA
CHESTERFIELD	KA4CBB	147.96	147.36	PA
CLIFTON FORGE	K4QEL	147.90	147.30	N
COVINGTON	WA4HTI	146.22	146.82	
CULPEPPER	N4FAF	147.72	147.12	M
DANVILLE	K4YZR	147.95	147.35	N NB
DANVILLE(DCC)	WB4GJG	146.325	146.925	
DANVILLE/WHT OAK	K4WQS	146.10	146.70	
DUBLIN	KT4Z	147.78	147.18	PA
DUFFLD/POWLL MT	KA4BHH	146.10	146.70	
FAIRFAX	W4LBL	146.19	146.79	M PA
FALLS CHURCH	W4AQD	144.75	145.35	M T
FARMVILLE	WB4NWP	146.31	146.91	N A
FINCASTLE	W4WIC	146.04	146.64	
FOREST	K4STE	146.16	146.76	A
FRANKLIN	K4SPS	147.90	147.30	N PA
FREDRICKSBURG	WB4LNT	147.615	147.015	
FRIES	WA4DFH	147.735	147.135	A
GALAX	WA4ZIV	144.79	145.39	N
GALAX/BRIRP MT	N4VL	147.69	147.09	
GALAX/LKOUT MT	N4VL	144.53	145.13	
GATE CITY	WD4GTA	147.945	147.345	N
GRUNDY	K4HWQ	147.92	147.32	N ANB
GUM SPRING	KB4GX	147.87	147.27	
HAMPTON	K4UMI	145.23	PKET	N
HAMPTON	K4DHO	146.13	146.73	
HAMPTON	K4UMI	146.34	146.94	N T
HAYSI	WB4WAU	147.60	147.00	
HAZEL MT	WD4CYZ	146.235	146.835	N
HILLSVILLE	WD4BTJ	147.975	147.375	A
JONESVILLE	WA4OVC	146.31	146.91	
LEXINGTON	WA4WBD	146.07	146.67	A
LEXNGTN/COLE MT	K4PQD	147.93	147.33	N
LYNCHBURG	W4WWQ	146.01	146.61	
LYNCHBURG	AB4M	147.43	144.93	NB
LYNCHBURG	WA4RTS	147.795	147.195	
LYNCHBURG	W4OSH	147.975	147.375	N PA
MADISON	N4AJO	147.99	147.39	M
MANASSAS	WD4JCE	144.67	145.27	M R
MANASSAS	WA4FPM	146.37	146.97	PA
MARION	N4BIW	146.04	146.64	
MARTINSVILLE	AB4L	147.885	147.285	
MCLEAN	WD4IWG	147.81	147.21	M R
MT. LK/BALD KNB	K4TUE	146.31	146.91	
NEW MARKET	WB4DAK	146.025	146.625	
NEWPORT NEWS	WB4CTF	147.765	147.165	PA
NEWPORT NEWS	WA4OHX	147.975	147.375	PA
NORFOLK	NE4D	146.10	146.70	
PETERSBURG	N4KAF	147.78	147.18	
PETERSBURG	K4ARO	147.84	147.24	TPA
PETERSBURG	K4ARO	147.99	147.39	
PORTSMOUTH	N4PR	146.25	146.85	
RADFORD	KC4WA	147.645	147.045	
RICHMOND	K4YPE	144.51	145.11	N
RICHMOND	W4SQT	144.83	145.43	
RICHMOND	WB4QEY	146.04	146.64	PA
RICHMOND	WA4ZBE	146.28	146.88	PA
RICHMOND	W4ZA	146.34	146.94	T
RICHMOND	WA4JST	146.43	147.03	N
RICHMOND	N4HB	147.735	147.135	
ROANOKE	WB4QET	146.34	146.94	A
ROANOKE/POOR MT	WB4QOJ	146.145	146.745	LPA
ROANOKE/POOR MT	W4CA	146.385	146.985	
SALEM	W4PDL	146.28	146.88	N
SOUTH BOSTON	WD4LBM	146.46	147.06	
STAUNTON	W4XD	146.10	146.70	
STAUNTON	WA4ZBP	146.25	146.85	
STAUNTON	W4WRN	146.37	146.97	EA
STAUNTON/EL. KB	W4WRN	147.645	147.045	

CVRA REPEATER SYMBOLS

Unmarked in First Code column-Full CVRA Members		RB	Remote Base System
N	NON Member CVRA	T	Tone Access Repeater
NB	Not On Band Plan Freq.	L	Linked Repeater
M	T-MARC Repeater	R	Radioteletype Rptr.
A	Open Autopatch	V	Television (SS or ATV)
PA	Private Autopatch	P	Proposed Repeater
EA	Emerg. Autopatch	C	Under Construction
		O	Off Air Temporarily

STERLING	WA4TXE	146.115	146.715	M
SUFFOLK	WR4AKS	146.40	147.00	N PA
TAZEWELL	WD4DZE	147.75	147.15	N
TYSONS CORNER	WB4FMD	146.31	146.91	M PA
VIENNA	K4HTA	146.085	146.685	M
VIRGINIA BEACH	WA4KXV	146.37	146.97	PA
VIRGINIA BEACH	WA4SBC	147.645	147.045	N
WARRENTON	WB4FJT	147.765	147.165	M
WARSAW	WA4UAF	147.93	147.33	
WAYNESBORO	W4BLD	147.63	147.03	
WAYNSBR/AFTON MT	W4PNT	147.675	147.075	
WILLIAMSBURG	W4NTG	146.07	146.67	
WINCHESTER	W4RKC	146.22	146.82	
WISE/HIGH KNOB	K4AXO	147.81	147.21	
WOODBRIDGE	WB4FQR	147.84	147.24	M A
WYTHEVILLE	WA4EMS	146.175	146.775	
YORKTOWN	WD4SDC	147.825	147.225	N

220 MHZ

ALEXANDRIA	WA4CCF	223.22	224.82	M L
DAN/WHT OAK	K4OAK	223.16	224.76	N
FAIRFAX	WB4YHD	222.50	224.10	M L
FALLS CHURCH	N4CHP	223.38	224.98	M PA
FRIES	WA4DFH	222.74	224.34	N
PETERSBURG	K4ARO	222.40	224.00	
ROANOKE/POOR MTN	WB4DBB	223.34	224.94	

440 MHZ

ALBERTA	K4ARO	449.55	444.55	L
ALEXANDRIA	WR4AAG	439.25	426.27	M V
ALEXANDRIA	W4HFH	449.60	444.60	M
BLUEMONT/WINCH	WA4TSC	444.925	449.925	NB
CHARLOTTESVILLE	WA4TFZ	449.25	444.25	
COVINGTON	WA4HTI	447.25	442.25	
FALLS CHURCH	WB8CRK	449.45	444.45	M L
FINCASTLE	W4WIC	448.75	443.75	
HAMPTON	K4UMI	448.65	443.65	N
LEXNGTN/COLE MT	K4PQD	449.15	444.15	N
LYNCHBURG	WB4DBB	449.35	444.35	L
LYNCHBURG	K4HEX	449.50	444.50	N RB
MANASSAS	WD4JCE	444.225	449.225	M L
MANASSAS	WB3EAQ	448.30	443.80	M
NORFOLK	W4WIN	439.25	426.25	V
NORTHWEST/SE VA	KR4K	448.80	443.80	N
PETERSBURG	K4ARO	449.40	444.40	
PETERSBURG	K4ARO	449.85	444.85	
RICHMOND	N4HB	449.00	444.00	
RICHMOND	K4ARO	449.65	444.65	
ROANOKE	WR4AFE	447.75	442.75	N
ROANOKE/POOR MT	W4CA	447.50	442.50	
SALUDA	WA4UAF	448.90	443.90	N
SPRINGFIELD	AA4VA	449.15	444.15	M
TYSONS CORNER	WB6GUS	448.50	443.50	M
TYSONS CORNER	K4JYF	449.75	444.75	M
VIRGINIA BEACH	WA4KXV	449.95	444.95	
WAYNESBORO	W4BLD	449.30	444.30	PA
WAYNSBR/AFTON MT	W4BLD	449.05	444.05	
WILLIAMSBURG	W4NTG	448.95	443.95	M
WINCHESTER	W3CSG	447.00	442.00	M
WOODBRIDGE	WB4FQR	444.90	449.90	M

6 METERS

ABINGTON	WR4ATJ	52.01	53.01	M L
ALEXANDRIA	WA4CCF	52.13	53.13	M L
DANVILLE(DCC)	WB4GJG	52.13	53.13	
FAIRFAX	KA4DCS	52.58	52.48	M NB
LEXNGTN/COLE MT	K4PQD	52.01	53.01	N L
NORTN/HIGH KB	K4LSP	52.01	53.01	N
RICHMOND	KA4NNN	52.43	53.43	N
RIDGEWAY	KE4FJ	52.25	53.25	
ROANOKE/POOR MT	WB4DBB	52.15	53.15	

10 METERS

STERLING	KD4DN	29.58	29.68	M P

TENNESSEE REPEATERS

2 METERS

ALAMO	WB4EDS	147.135	147.735		B
ALTAMONT	WR4AWN	146.37	146.97	N	
ATHENS	WB4GRC	144.71	145.31	N	
BENTON	K4SIR	144.85	145.45	N	
BESSEMER(ALA)	N4AHN	144.55	145.15		NBL
BIRMINGHAM(ALA)	WD4BXA	147.285	147.885		A
BLOUNTVILLE	WA4KMG	147.60	147.00	N	
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	WD4CYZ	146.28	146.88	N	
BRISTOL/HLSTN MT	WR4ADO	146.16	146.76	N	
BROWNSVILLE	WA4ABU	146.655	146.055	N	NB
CENTERVILLE	WB4PZB	147.915	147.315	N	
CHATT/SIGNAL MT	WA4ZOK	147.60	147.00		PA
CHATTANOOGA	K4VCM	144.69	145.29		
CHATTANOOGA	W4AM	144.73	145.33	N	
CHATTANOOGA	KB4TZ	144.79	145.39		A
CHATTANOOGA	K4CMY	146.01	146.61		
CHATTANOOGA	AD4F	146.10	146.70		
CHATTANOOGA	W4DSK	146.19	146.79		A
CHATTANOOGA-RTTY	K4CMY	144.53	145.13	N	
CLARKSVILLE	W4AM	147.60	147.00	N	
CLEVELAND	WD4DES	147.78	147.18		
COLUMBIA	WR4AIX	147.72	147.12	N	
COOKEVILLE	WA4UCE	146.07	146.67	N	A
COOKEVILLE	N4WS	147.81	147.21		
COVINGTON	WA4VXW	147.93	147.33	N	
CROSSVILLE	KE4RX	146.04	146.64	N	
CROSSVILLE	W4CV	147.93	147.33	N	
DAYTON/RHEA CTY	K4ZLA	147.99	147.39	N	
DECATUR-PONE KB	W4RJC	144.55	145.15		
DYERSBURG	AA4HF	146.145	146.745	N	
FAYETTEVILLE	KO4G	146.265	146.865	N	
FAYETTEVILLE	W4NIQ	147.63	147.03	N	
FISHERVILLE	N4DRL	144.65	145.25		A
FRANKLIN	WB4HCK	144.55	145.15	N	RB
FRAYSER	W4UFT	146.10	146.70	N	
FRAYSER	W4ZJM	146.43	147.03	N	
GALLATIN	W4NIT	147.84	147.24	N	PA
GALLATIN	WA4YQC	147.87	147.27		PA
GALLATIN	WB4DLQ	147.99	147.39	N	
GREENEVILLE	N4TV	144.65	145.25		
GREENEVILLE	WB4TUO	144.81	145.41		
GREENEVILLE	WA4LYF	147.66	147.06		A
GTLBG/COVE MTN	WA4KJH	146.25	146.85		L
HENDERSONVILLE	WB4WZK	146.115	146.715		
HENDERSONVILLE	WD4FFM	147.945	147.345	N	
JACKSON	KF4SC	144.71	145.31	N	
JACKSON	W4WKZ	147.81	147.21	N	
JASPER	KD4XX	144.59	145.19		
JOHNSON CITY	WB4SQC	144.69	145.29		EA
JOHNSON CITY	WB4EHK	146.19	146.79		
JOHNSON CITY	KE4FH	147.87	147.27		A
KNGSPT/BAYS MT	W4TRC	146.37	146.97		A
KNOXVILLE	WB4JSD	144.51	145.11		R
KNOXVILLE	K4KFD	144.61	145.21	N	A
KNOXVILLE	WA4TEM	144.73	145.33		A
KNOXVILLE	WA4GZE	144.77	145.37		
KNOXVILLE	WB4GBI	144.83	145.43		
KNOXVILLE	WB4IOB	146.13	146.73		
KNOXVILLE	K4HXD	146.34	146.94		
KNOXVILLE	K4HXD	147.675	147.075		A
KNOXVILLE	W4BBB	147.90	147.30		
KNOXVILLE	WB4HAP	147.96	147.36		
KNXVL/HOUSE MT	WB4GBI	144.87	145.47		
LAFOLLETTE	KF4OK	144.53	145.13		
LAFOLLETTE/WMT	W4TZG	146.07	146.67		
LAKE CITY	WB4OAH	146.22	146.82	N	
LEBANON	KE4VZ	146.13	146.73		PA
LENOIR CITY	KE4SK	144.57	145.17		
LEXINGTON	WB4LGH	146.43	147.03	N	
MADISON	WB4NTM	146.04	146.64		EA
MANCHESTER	W4FOT	146.10	146.70	N	A
MARTIN	WA4ZQX	146.625	146.025		NB
MCMINNVILLE	WA4CPJ	144.63	145.23	N	A
MCMINVL/SHT MT	W4KKO	144.89	145.49		
MEDINA	K4BEZ	146.37	146.97	N	A
MEMPHIS	WA4VIP	144.81	145.41	N	
MEMPHIS	WA4KOG	144.89	145.49	N	
MEMPHIS	WB4MQD	145.33	PKET	N	
MEMPHIS	W4GYS	146.04	146.64	N	
MEMPHIS	WR4AOG	146.10	146.70	N	R
MEMPHIS	KA4JXT	146.13	146.73	N	
MEMPHIS	WR4ABS	146.19	147.51	N	NB
MEMPHIS	W4BS	146.22	146.82	N	
MEMPHIS	WA4KOG	146.25	146.85	N	A
MEMPHIS	WA4ETE	146.28	146.88	N	A
MEMPHIS	K4BN	146.34	146.94	N	A
MEMPHIS	K4FZJ	146.40	147.00	N	
MEMPHIS	WA4MQQ	146.46	147.06	N	
MEMPHIS	W4ZJM	147.63	147.03	N	L
MEMPHIS	WR4AWT	147.69	147.09	N	
MEMPHIS	WB4DAZ	147.72	147.12	N	AT
MEMPHIS	WA5KUB	147.75	147.15	N	
MEMPHIS	WA4KOG	147.78	147.18	N	
MEMPHIS	WD4APK	147.84	147.24	N	
MEMPHIS	WR4AZC	147.87	147.27	N	
MEMPHIS	WA4ADT	147.90	147.30	N	
MEMPHIS	WB4MMI	147.96	147.36	N	
MEMPHIS	WR4ASR	147.99	147.39	N	
MIDDLEBRO(KY/TN)	W4PPM	144.63	145.23	N	
MORRISTOWN	WD4RTT	147.63	147.03		EA
MORRISTOWN	WB4OAH	147.825	147.225	N	
MOUNTAIN CITY	WD4OMO	144.87	145.47	N	
MT. JULIET	WB4DOR	144.79	145.39	N	
MURFREESBORO	WB4LHO	144.57	145.17		PA
NASHVILLE S.	WB4NTM	147.96	147.36		R
NASHVILLE S.W.	WB4NTM	146.07	146.67		EA
NASHVILLE	N4AJS	144.65	145.25		
NASHVILLE	KA4KNG	144.75	145.35	N	
NASHVILLE	WB4HTX	144.83	145.43		PA
NASHVILLE	N4ARK	144.87	145.47	N	
NASHVILLE	WA4PCD	146.01	146.61		PA
NASHVILLE	WB4QES	146.16	146.76	N	
NASHVILLE	W4SQE	146.19	146.79		
NASHVILLE	N4TK	146.25	146.85		PA
NASHVILLE	WB4QES	146.28	146.88	N	
NASHVILLE	WA4PCD	146.34	146.94		
NASHVILLE	AF4K	147.615	147.015	N	
NASHVILLE	WD4FFM	147.705	147.105	N	
NASHVILLE	WA4PCD	147.75	147.15		
NASHVILLE	WA4PCD	147.78	147.18		
NASHVILLE	WB4ZSA	147.90	147.30		PA
NASHVILLE	N4AJS	147.93	147.33		
OAK RIDGE	W4SKH	146.28	146.88	N	
OAK RIDGE	W4SKH	146.37	146.97	N	A
OAK RIDGE	K4EAJ	147.72	147.12		L
OAK RIDGE	K4EAJ	147.75	147.15		R
PARIS	K4KLX	147.96	147.36		A
PULASKI	KA4CCL	146.775	146.175	N	NB
SAVANNAH	WB4DQU	146.31	146.91	N	
SEVIERVILLE	N4CJX	144.67	145.27		EAC
SHELBYVILLE	W4QEB	147.66	147.06		A
SHORT MTN	W4YXA	146.31	146.91		EA
SPARTA/BON AIR	W4BSA	147.69	147.09		A
STANTONVILLE	KA4OHC	144.79	145.39	N	
UNION CITY	WA4YGM	146.10	146.70	N	
WAVERLY	NO4Q	146.685	146.085	N	NB
WINCHESTER	WR4AFH	146.22	146.82	N	

220 MHZ

CHATT/SIGNAL MT	WA4ZOK	223.30	224.90		
CHATTANOOGA	K4VCM	223.18	224.78		A
CLARKSVILLE	KF4GP	222.34	223.94	N	
FRANKLIN	WD4SGS	222.54	224.14	N	
GALLATIN	WB4ZSA	222.38	223.98		PA
GREENEVILLE	WB4NKM	223.34	224.94		A
HERMITAGE	WB4RAB	222.30	223.90		
KNOXVILLE	WA4YON	222.86	224.46		
KNOXVILLE	W4BBB	222.90	224.50		
KNOXVILLE	KB4CTS	223.22	224.82	N	C
MEMPHIS	W4ZJM	222.34	223.94	N	L
NASHVILLE	N4TB	222.42	224.02	N	
NASHVILLE	WR4	222.48	224.08	N	
NASHVILLE	N4AWB	222.62	224.22	N	

440 MHZ

ALAMO	WB4EDS	448.75	443.75	N L
CHATT/SIGNAL MT	WA4ZOK	439.25	427.25	V
CHATTANOOGA	WA4NFO	449.10	444.10	
FISHERVILLE	N4DDS	449.30	444.30	N A
FRANKLIN	WB4EPG	447.80	442.80	N
GALLATIN	WD4BKY	449.35	444.35	
GALLATIN	WD4KWP	449.45	444.45	PA
GATLBG/COVE MT	WA4KJH	448.30	443.30	L
GREENEVILLE	WB4NKM	449.65	444.65	
HOOVER(ALA)	K4FUM	449.30	444.30	NBA
KNOXVILLE	WB4HAP	447.50	442.50	
KNOXVILLE	K4HXD	449.30	444.30	
KNOXVILLE	KB4NK	449.60	444.60	
KNXVLE/HOUSE MT	WB4GBI	449.70	444.70	
MEDINA	K4BEZ	447.05	442.05	N AL
MEMPHIS	WA4KOG	444.40	449.40	N NB
MEMPHIS	WA4QWW	447.80	442.80	N
MEMPHIS	W4ZJM	448.00	443.00	N
MEMPHIS	WA4DOA	448.40	443.40	N A
MEMPHIS	KA4JKT	449.50	444.50	N A
MEMPHIS	WD4APK	449.80	444.80	N
MILAN	WD4ABJ	447.10	442.10	
MORRISTOWN	KA4NEX	449.20	444.20	N
NASHVILLE	WA4PCD	449.55	444.55	
NASHVILLE	WA4PCD	449.675	444.675	
NASHVILLE	N4TK	449.775	444.775	N
NASHVILLE	WB4THG	449.875	444.875	N
NASHVILLE	WB4QES	449.975	444.975	N
OAK RIDGE	K4EAJ	449.40	444.40	L
PARIS/GROVE HL	WA4WKS	448.50	443.50	

10-METERS

MEMPHIS	W4ZJM	29.52	29.62	N

6 METERS

CHATTANOOGA	WB4LRD	52.01	53.01	
KNOXVILLE	WB4IOB	52.15	53.15	A
KNOXVILLE	WA4YON	52.25	53.25	L
KNOXVILLE	WB4GBI	52.35	53.35	C
KNOXVILLE	K4HXD	52.76	52.525	NB
MEMPHIS	WA4KOG	52.01	53.01	N

WEST VIRGINIA REPEATERS

2 METERS

ALDERSON	WA8AVZ	146.13	146.73	N
BECKLEY	KC8FW	144.77	145.37	N LA
BKLY/FLAT TOP MT	K8BO	146.25	146.85	A
BLUEFIELD	W8MOP	144.89	145.49	A
BOLT MT	KD8X	144.57	145.17	N L
BRIDGEPORT	K8VNQ	147.72	147.12	EAL
BUCKHANNON	K8WYH	146.25	146.85	N
CHARLESTON	W8WHQ	144.83	145.43	
CHARLESTON	WB8IFS	146.22	146.82	N
CHARLESTON	WB8CQV	146.28	146.88	N
CLARKSBURG	WB8ZVS	146.22	146.82	
CLARKSBURG	WB8DTM	146.50	52.525	N NB
DUNBAR	K8VKI	147.72	147.12	EA
FAIRMONT	W8SP	146.31	146.91	
FRANKLIN	W3RUA	147.945	147.345	
GRAFTON	K8VNQ	147.975	147.375	L
HUNTINGTON	WB8FEQ	144.61	145.21	N P
HUNTINGTON	WB8EZR	146.04	146.64	
HUNTINGTON	W8VA	146.16	146.76	A
HUNTINGTON	KA8BKX	147.90	147.30	N
KINGSTON/LICK KB	W8FG	144.87	145.47	
LAYLAND/MANN MT	N8BZS	144.71	145.31	N L
LEON	WB8NMT	147.78	147.18	N
LIBERTY	K8SLI	144.81	145.41	N P
LOGAN	WD8KWC	144.63	145.23	N
LOGAN	WA8ZLR	146.09	147.11	N ONB
LOGAN	WD8DRV	146.37	146.97	
MADISON	KA8JYR	146.06	147.06	N NB
MARMET/BEE MT	N8DBN	144.55	145.15	N
MARTINSBURG	WA8FSE	144.55	145.15	M
MARTINSBURG	WB8VAZ	147.855	147.255	M
MCMECHEN	WA8ULB	146.31	146.91	
MCMECHEN	N8CFX	147.75	147.15	
MONTGOMERY	WB8VUY	147.99	147.39	N
MORGANTOWN	K8LG	144.83	145.43	N L
MORGANTOWN	W8CUL	146.16	146.76	LPA
MULLENS	KC8IT	147.63	147.03	LA
NEW MARTINSVLLE	WB8CSW	146.34	146.94	N
OAK HILL	W8GH	146.19	146.79	EA
PARKERSBURG	WA8CRW	146.37	146.97	PA
PARKERSBURG	WD8AXY	147.99	147.39	
PARSONS	K8VNQ	144.73	145.33	EAL
POINT PLEASANT	W8KNM	147.66	147.06	N
PRINCETON	KA8PNC	146.46	147.06	A
RAVENSWOOD	WD8JNU	146.07	146.67	
RAVENSWOOD	WD8JNU	146.10	146.70	R
RICHWOOD	K8VKB	146.34	146.94	
RIPLEY	K8SNW	146.31	146.91	N P
SALT ROCK	WD8MCR	144.51	145.11	N
SCOTT DEPOT	K8SLI	147.87	147.27	N A
SPENCER	KA8AUW	146.01	146.61	N
ST ALBANS	WB8GDY	146.40	147.00	
ST ALBANS	K8BCH	147.975	147.375	R
ST ALBANS/COAL	WB8KAD	146.12	146.72	PA
ST ALBANS/COAL	WB8OEC	147.75	147.15	N
ST MARYS/BENS R	WB8ECC	147.63	147.03	N L
TERRA ALTA	WB8PHU	147.60	147.00	PA
WEIRTON	KC8JN	146.34	146.94	A
WELCH	WB8SXZ	144.85	145.45	N
WESTON	W8PZT	144.79	145.39	N
WHEELING	W8YFX	144.59	145.19	
WHEELING	W8JDH	146.16	146.76	N

220 MHZ

HUNTINGTON	KA8BKX	222.54	224.14	N
KINGSTON/LICK KB	W8FG	223.14	224.74	N

440 MHZ

BECKLEY/EOC	N8FRV	449.80	444.80	N
MORGANTOWN	K8LG	449.70	444.70	N L
MORGANTOWN	W8CUL	449.80	444.80	PA

6 METERS

ST MARYS/BENS R	WD8RET	52.17	53.17	N L

GEORGIA REPEATERS

NOTE: Only Full Member Repeaters in Georgia are listed

2-METERS

ATHENS	WA4BKF	147.225	147.825	NB
ATHENS	K4TQU	147.375	147.975	NB
ATLANTA/BELL	W4PME	144.81	145.41	
ATLANTA/GA TECH	W4AQL	144.55	145.15	
AUGUSTA	K4VF	146.34	146.94	
AUGUSTA	W4ALK	147.72	147.12	A
AUGUSTA	N4BMA	147.78	147.18	R
AUGUSTA	W4LWT	147.915	147.315	
DALTON	K4WNG	144.63	145.23	
DALTON	N4BZJ	144.65	145.25	
DALTON	KC4TT	147.315	147.915	NB
DALTON	N4BZJ	147.735	147.135	
DALTON	KE4LN	147.81	147.21	
DECATUR	W4VTA	144.51	145.11	EA
DECATUR	N4AQV	146.205	146.805	
GAINESVILLE	W4NSO	146.07	146.67	A
GRIFFIN	WB4GWA	144.79	145.39	PA
HARTWELL	KY4T	146.895	146.295	ANB
MARTINEZ	N4JA	144.77	145.37	C
NEWNAN	K4SEX	144.53	145.13	PA
NEWNAN	K4SEX	146.19	146.79	
SAVANNAH	W4HBB	146.28	146.88	
SAVANNAH	W4HBB	146.37	146.97	A
TOCCOA	KA4DIP	147.93	147.33	PA
WRENS	N4JA	144.77	145.37	P
ATLANTA	KE4IO	29.52	29.62	
ATLANTA	K4LDR	449.15	444.15	

EAST KENTUCKY REPEATERS

DAMRON MTN*	K4BGQ	147.87	146.27	
LOUISA*	WA4SWF	146.13	146.73	
LYNCH/BLACK MT*	N4IZD	147.945	147.345	
PIKEVILLE*	N4ETG	146.19	146.79	
PIKEVILLE*	N4IXA	146.25	146.85	A
PRESTONSBURG*	K4ICN	144.69	145.29	
LYNCH/BLACK MT*	N4IZD	448.10	443.10	

Central Alabama VEC Also Serving 4th Call District

The Central Alabama VEC was certified by the FCC on May 10 after formation on April 1st. The organization was certified a non-profit entity on July 13, 1984.

The basic purpose of CAVEC is to provide a vehicle for any club/clubs or amateurs to give amateur exams in that group's local area on a regularly scheduled basis.

CAVEC appoints a Chief Volunteer Examiner (CVE) in each major area, as needed, with the concurrence of the club/clubs or amateurs in that area. The CVEs then organize and recommend VEs to be certified by CAVEC from qualified amateurs in that groups area and form a team into a VE committee that should represent all the amateurs in the local area.

The VE committee is to formulate and administer any or all exams in that area under the supervision of the CVE. CAVEC also stands ready to assist in furnishing what is needed by local VEs in examination materials if necessary.

Any club, or group interested in obtaining certification as a Volunteer Examiner through CAVEC should write: Tom Ingram, K4OOV, Chairman, CAVEC, Inc. 606 Tremont Street, Selma, Alabama 36701.

Many or most of CAVEC's VEs are located in the Georgia, Florida and Alabama area, however since they also represent the 4th call district as do numerous other VECs, you can apply for VE status through them.

The organization has released an examination schedule through 1985. Since they are mostly out of our area, we will list some that may be of interest to our Northern Georgia readers, and Eastern Alabama readers. Further information and schedules may be obtained from Tom Ingram.

CAVEC Exam Schedule (Partial)

Nov. 15	Selma, Ala.
Dec. 1	Birmingham, Ala.
Dec. 20	Selma, Ala.
Jan. 12	Huntsville, Ala.
Jan. 17	Selma, Ala.
Feb. 21	Selma, Ala.
Mar. 2	Huntsville, Ala.
Mar. 21	Selma, Ala.
Apr. 18	Selma, Ala.

All Selma exams are given at the Selma High School. All Huntsville exams are given at the Red Cross Building on Andrew Jackson Way NE. No exams are scheduled in the Georgia area at this time, although CAVEC indicated some will be scheduled as time passes. It is fairly certain, exams will be given at the Atlanta Hamfest, although none are officially scheduled as of yet.

Best Holiday Wishes

To All CVRA-SERA Members From The Officers, Directors and Staff

Simplex Autopatches . . . Do We Really Want Them or Not?

The FCC isn't saying too much about the flurry of Simplex Autopatches that are popping up everywhere, although hints indicate they may be bordering illegal.

According to John Johnston, Chief of FCC's personal Radio Branch, he is quoted in several publications as saying "Do Amateurs really want a lot of their fellow amateurs using radio as a cordless telephone."

QST advertising which discusses Simplex Autopatch devices will include the following disclaimer: "Use of this device with a transceiver below 220.5 mHz. is not permitted unless a separate control link is provided."

Bill Grenfield, W4GF, retired and well-known former FCC representative, writes in his "FCC Highlights" column for Worldradio: "Simplex autopatches must have a separate control link on any amateur band, not just below 220.5 mHz . . . "The FCC, however, requires positive transmitter control on any amateur frequency, not just 2-meters. "The real issue here, though, is whether the Commission feels that simplex autopatches are truly in the best interests of amateur radio." (From W9JUV via Westlink Report)

Although no Directors were present at the Fall meeting at Shelby, all others present during the discussion on Simplex Autopatches felt CVRA-SERA should not recognize them as official and urged Directors not to coordinate frequencies for such devices.

Time will tell as to just what will happen concerning Simplex Autopatch systems. Right now, their only purpose seems a convenient "cordless telephone" utilizing valuable Amateur frequencies. (Wayne C. Williams, Editor)

HAMFEST SPONSORS!

*Have You Noticed the **N**umber of Hamfest Ads **I**n The Repeater Journal?*

It's Because They MAKE A DIFFERENCE!

Reach Over 4,000 Hams In The Surrounding Area For As little as 1.8¢ per person.

Advertise Your Hamfest With A Full Page Ad In The Repeater Journal!

Contact Our Sales Manager. Her Name & Address Is On Page 1.

Dear Customer:

There are many new radios out there with some "unbelievable" bells and whistles on them. I honestly believe if you will take time to check out a SANTEC H/T you will find it has ALL you need to get the job done.

The SANTEC bells and whistles are designed with the AMERICAN Amateur in mind, by American Designers and programmers, and built in Japan. The others are designed by Japanese designers, programmers and built in Japan for Japanese Amateurs. You will also find that a SANTEC is easier and faster to operate, and covers all you need with all the power you need. Every accessory for a handheld is available generally at a lower price than the competition, for your SANTEC. So, before you go out and buy yourself a "label", check out a SANTEC, I guarantee you will find it is far ahead for what you need and want. Ask us, we can tell you all about it!

Sincerely:
Wayne C. Williams, K4MOB
Williams Radio

P.S. Haven't you ever wondered why we sell only ONE H/T – SANTEC!

Now that we Have Your Attention . . .
Here is a Special Holiday Buy
We're offering on your new SANTEC!

SAVE! $80.95

ST-142
259.00

SPECIAL!
Until we sell out! Buy a SANTEC ST-142, ST-222 or ST442 and we'll include a ST-8BC Base Charger for ONLY $15. These chargers regularly sell for $35.00. We made a special purchase for this sale and will be available as long as the ST-8 is in stock . . . . so Hurry!!!

ST-222 H/T (220-mHz) . . . $279
ST-442 H/T (440-mHz) . . . $285
NEW!!! From Santec FM/SSB
LS-202 H/T (2-Meters). . . $229

REPEATER JOURNAL ADVERTISING RATES

Effective 1 January 1984

The Repeater Journal is a 3 column magazine with overall page dimension of 8½ x 11 inches. Our page size enables a wide variety of ad sizes from full page down to one column inch size.

Column Widths are 1 col: 2-1/4-in., 1-1/2 col: 3-1/2-in., 2 col: 4-5/8-in., 3 col: 7-1/8-in. Ad widths will be based only with the specified column widths.

DEADLINES: New advertising copy or ad changes must be in the hands of our Advertising Manager no later than the 20th of the month on the 2nd month prior to publication. We cannot guarantee insertion of ads after deadline, although every effort will be made to accomodate.

ADVERTISING DEADLINES

FEB. Issue–Dec. 20	MAY Issue–Mar. 20
AUG. Issue–June 20	NOV Issue–Sep. 20

CVRA REPEATER JOURNAL advertising rates apply to exact size, camera ready copy. We can provide typesetting and reduce art for your ad at our cost. Composition and typesetting for full page ad approximately $25 to $28. Half page ad from $12 to $15. Reduction of artwork for ad with no type needed is $4.50. COLOR: We can provide one additional color on our standard color pages for $25.00.

The Repeater Journal layout size is very close to most National magazines. If you wish to use a page from one of the magazines, to promote your product, we can reshoot on the camera, insert your store name and customize for your particular application. Be sure to submit a clean, unwrinkled copy of the magazine page.

Contract advertising may be billed quarterly at the request of Advertiser. No volume discounts or contract discounts are available. It is the advertisers responsibility to cancel or request changes in advertising at the time he pays his bill, or before ad deadline, otherwise, advertising will be repeated until further notice.

BUSINESS CARDS, CLASSIFIED ADS AND HAMFEST advertising must be sent accompanied by full payment for insertion. Advertisers who have not paid for previously published advertising before upcoming issue deadline, cannot have any advertising inserted until account is paid in full.

The CVRA REPEATER JOURNAL cannot be responsible for errors in advertising, or held accountable for equipment or accessories that do not live up to the advertised claim. We are not responsible and cannot guarantee insertion of advertising received after deadline.

Advertising copy MUST be mailed to: REPEATER JOURNAL ADV. MANAGER, SHARON WARD, 5573 Vienna-Dozier Rd., Pfafftown, N.C. 27040.

REPEATER JOURNAL ADVERTISING SIZES AND RATES

Ins. Frt. or Ins. Bk. Cover	7-1/8" x 9-7/8"	$90.00
Full Page	7-1/8" x 9-7/8"	75.00
Full Page Bleed (any sides)	8-1/2" x 11"	90.00
2/3 Page (Vertical)	4-5/8" x 9-7/8"	55.00
1/2 Page (Horizontal)	7-1/8" x 4-3/4"	42.75
1/2 Page (Vertical)	3-1/2" x 9-7/8"	42.75
1/2 Page (Vertical 2-col)	4-5/8" x 7-1/8"	42.75
1/4 Page (Vertical Only)	3-1/2" x 4-3/4"	24.00
1/3 Page (Vertical Only)	2-1/4" x 9-7/8"	30.00
1/6 Page (Vertical)	2-1/4" x 4-3/4"	16.00
1/6 Page (Horizontal)	4-3/4" x 2-1/4"	16.00
1/12 Page (Vertical Only)	2-1/4" x 2-1/4"	9.00
Business Cards – Standard Size	(4 Issue Contract Only)	14.00/yr. In Advance

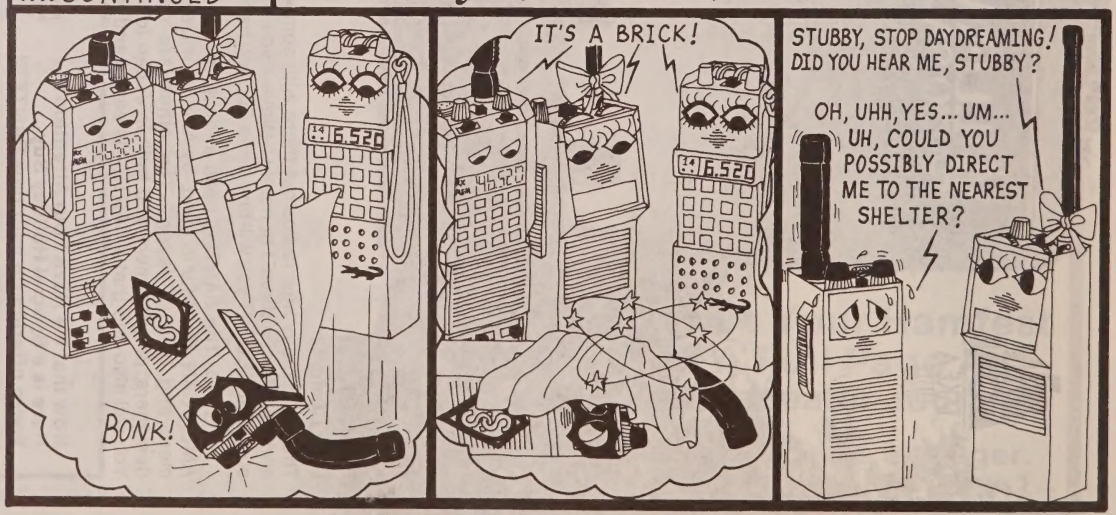
Classified Ads (30 Words Maximum per ad) In Advance 2.50
Color (1 additional color plus black) An Size add 25.00

Sizes listed above are width by length in that order. Ads which run lengths between sizes listed above will be billed according to column inch rate at midpoint. Prices above are for exact size, camera ready positive photoprint, or pasteup. Camera work, typesetting additional. No charge for layout.

Repeater Journal Readers are faithful to Repeater Journal Advertisers. Your advertising in the Repeater Journal reaches almost 4,000 members in a 5-state area

....CONTINUED-

Stubby by Fred Hurteau, WD4SKH


BONK!
IT'S A BRICK!
STUBBY, STOP DAYDREAMING! DID YOU HEAR ME, STUBBY?
OH, UHH, YES... UM... UH, COULD YOU POSSIBLY DIRECT ME TO THE NEAREST SHELTER?

Novice Kits Available!

In cooperation with the Repeater Journal, Walt Thompson, WV4K of Greensboro is offering a complete novice test kit for Amateurs wishing to give Novice exams. The kit is free of charge. All you have to do is write Walt and enclose a S.A.S.E. with 37¢ postage affixed and he will return the goodies to you.

Included in the kit will be:

(1) FCC Regulations fact sheet. (2) Novice Exam (3) Answer Sheet (4) Answer Key and (5) Modified FCC 610 form

For your free Novice Test Kit write:
Walt Thompson, WV4K
2505-A Patriot Way
Greensboro, N.C. 27408

Be sure to enclose a S.A.S.E. with 37¢ postage affixed for this very valuable service provided by Walt.

COMMODORE 64 and VIC-20 Owners!

CW & RTTY

Send and receive morse code and RTTY with software by RAK Electronics. Simple to load cassette tapes come with hard-to-find I/O connector, complete schematic for simple non-critical part homebrew interfaces, and thorough instructions.

Check These Features:

- Programmable, retrievable messages saved even when system turned off
- Automatic receive speed control
- Transmit 5-25 WPM on CW, all standard RTTY speeds.

Price Break! **CW – $14.95**
RTTY – $16.95
Both for $26.95–SAVE!

MFJ Interface/Software Available!
Wired/Tested TU $90.00
Complete Kit TU $60.00
TU Circuit Board $10.00
Add $2.00 Shipping Each Order

NOW! CW for ATARI, PET TOO!

○ SASE for more info and complete list of Cassette Game, Home and other Great Ham Radio Programs and Accessories!

Amateur Accessories
6 Harvest Ct. RD7, Dept. RJ
FLEMINGTON, N.J. 08822
(201) 782-1551 6:30-10:30 p.m. EST
VISA/MC, CHECK, M.O.

Pender Cty. During Diana

Continued from Page 3

K4HF Chuck and WB4UYT Mike from the Raleigh area were requesting direction where to go. Chuck went to Topsail High School and Mike to Holly Ridge to relieve those who had been on 30 hours. Dan Coffey N4CCL of Wilmington came up to the preparedness office and helped relieve Adrian.

Chuck and the principle had the center alone but as the news of Diana's decision to start her dance on the beaches and on land was broadcast the people came back. She whirled and twisted showing all of us her abilities and even the diehards were made believers and sought shelter. She sent 18 inches of rain and winds of 100 MPH bending trees and breaking them as she raged her fury.

Sneaking a quick turn to other stations working other repeaters and direct you found calm and able amateurs and as one person put it later those radios helped keep down panic in the evacuation centers because people felt the unity of a voice out there knowing they might need help and would get it to them. The voice keeping them informed so they knew what was going on and the tone in the voice made them feel we were professionals not knowing we were all rank "amateurs".

Some electrical outages were solved with battery power and KA4PAY went to her car during the height of the storm. By dawn power had been restored in Pender County, no centers were without power. Ella went back inside when the lights came on at dawn by then she was needed to help with traffic from State E.O.C. office to Wilmington so adding this to her other duties she tried to keep up with it all. The news media was reporting devastation at the beaches. Diana had decided she wasn't quite through with Brunswick County. It was terrible but by light you could see people everywhere had so much to be thankful for as it could have been so much worse comparing this with Hazel of 30 years ago.

Amateurs continued on duty. Most in Pender County with only a nod of sleep. By 5:30 on Thursday KA4PAY made her last transmission, after 53½ hours at her radio without closing her eyes as water surrounded her home in about a half hour with the river and pond near her home rushing around it.

K4HF Chuck and WB4UYT Mike were relieved their command as centers began to close around 3 o'clock. They will always be in our hearts for the aid they gave.

The knowledge that amateurs like these were waiting their turn to come and help warms us and make us glad to be a part of this great fraternity.

May this type of thing never happen again but draw comfort in knowing there is a group capable of handling any situation.

Pender County Hams Work During Diana's Destructive Winds

–by Adrian Perseghin, KA4PAZ
EC Pender County

Mr. Jerry Randall, the County Civil Preparedness Officer called me on Monday Morning September, 10, and requested me to attend the Hurricane evacuation meeting at Surf City that afternoon. I was requested to provide radio operators for the Surf City and Topsail Beach Mayors at their emergency command post on the Mainland side of the Intracoastal Waterway at the real estate offices of D & E Marketing. Bill Meszes, KB4KVA, was assigned to that post. I set up other positions at the Topsail High School, Pender High School and Burgaw Jr. High School evacuation centers as well as the Pender County Law Enforcement Center and the county emergency operations center at the civil preparedness office. The amateurs manning these posts were:

Topsail High School — Everitt Bradshaw of Wallace, N.C.-KB4GVH and Chuck Littlewood, relief operator from Raleigh, K4HF

Pender High School — Ray Fields, Jr. Burgaw-WD4ALZ

Burgaw Jr. High — Ray Fields, Jr. also had contact with this location.

Law Enforcement Center — J.B. Shepard and Raymon Fields, Sr., Burgaw-W4YBA and K4LZY respectively.

Civil Preparedness Office — Adrian Perseghin, EC-of Burgaw-KA4PAZ

Additional operators were Ella Porter, Rocky Point-KA4PAY who was our liason with the Wilmington Amateurs in New Hanover County and Mike Meszes, Burgaw-WD4DPH and his XYL Anne-WD4DPG who were the HF operators on 3923 and 146.88 with the State E.O.C. in Raleigh. Also Mike Starnes of Raleigh-a relief operator from Raleigh assisted Bill Meszes as operator for the command post at D & E Marketing. Mike Starnes call is WB4UYT.

We could have used more relief operators but we are thankful for Chuck and Mike coming down to help us. Amateur Radio was the only means of communication between the county EOC and the Topsail High School evacuation center because the telephones went out just as Jerry Randall called to tell them to move their refugees to the Pender High School in Burgaw. The message had to be delivered by amateur radio using my handie talkie with our 34/94 repeater.

We were all using magnetic mounted mobile antennaes with exception of Topsail School. We installed a homemade quarter wave ground plane on the roof of the building. We plan to install a permanent antennae at that location for future use.

WEST ANTENNA SERVICE – YOUR SOURCE FOR

ROHN TOWERS AND ACCESSORIES

Rohn 25-G Straight Sections

In addition to a large stock of straight tower sections, we also have flat and sleeved top sections, trust bearings, house brackets, short base sections, rotor plates, guy assemblies, guy wire, cable clamps, turnbuckles – you will need for a complete tower installation.

Rohn Top Sections

If you have a Rohn 25-G tower at the height you want, and need the top section, we have in stock the BAS-25-G cap section. Has flat top, drilled for TB-3 bearing and a welded-in rotor plate. Length 20-inches.

Other Tower Accessories

Aluminum mast pipes, feature 2-inch OD 6061 tubing with 1/4-inch wall.

12-foot lengths, 19 lbs – IN Stock
24-foot lenghts, 38 lbs – Spec. Order

Touch rust spots on your tower and antenna bolts with RUSTOLEUM, cold galvanizing.

Large 20-oz. Industrial spray can...$5.10

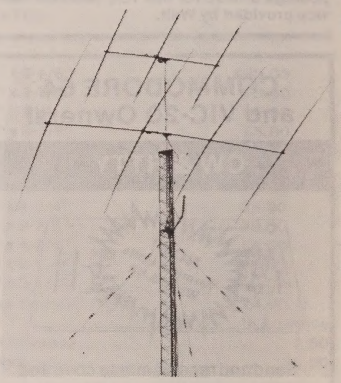
Stainless Steel Strapping Kits

Stainless steel strapping kits, for strapping hard line or multiple runs of Coax. Kits come with 25, 50 or 100-feet of stainless steel strapping and buckles.

25-foot strapping kit $18.00
50-foot strapping kit $25.00
100-foot strapping kit..... $36.00

Scotchkote Electrical Coating

Made by 3-M Co. Can be used for underwater connections also. A 15 oz. can will do 50 to 100 connections.
15-oz. can Scotchkote coating $7.90



Hard Line and Connectors

West Antenna Service can also supply 1/2 and 7/8-inch hard line in aluminum or copper. We also have a limited stock of hard line connectors. If we do not have the connectors you need, they can be supplied within approximately 10 days.

Utility Poles & Hardware

We have a limited variety of utility pole hardware and can supply utility poles in the Greensboro, N.C. area. Call us if you have a problem we can design a system for you.

Answer your tower problems

If you hit a snag in designing your tower system and need help, we may be able to assist you. We have a large variety of parts, accessories for towers, utility poles and just about anything you can think of to complete the most complex antenna system on a tower.

WEST ANTENNA SERVICE

ROUTE 6, BOX 529-A • GREENSBORO, N.C. 27405
Harwood West, WB4RLO • Local Call 621-2473
CALL TOLL FREE:
1-800-334-4252 • IN NC – 1-800-632-0389

SAVE 20%

Over Newstand Price

BY JOINING CVRA-SERA AS AN ASSOCIATE MEMBER ONLY $4.00 A YEAR AND GET THE NEW REPEATER JOURNAL EVERY QUARTER

RJ1184

A MEMBERSHIP GIFT FROM_____ CALL_____

CVRA-SERA ASSOCIATE MEMBERSHIP APPLICATION

Name _____ Call _____

Address _____ Date _____

City _____ Zip _____

Phone (___) _____ Member ARRL ( ) Yes ( ) No

Enclosed is $ _____ for _____ Year(s) Mail Appl. & Fee To:

$4.00 for 1 Year - $8.00 for 2 Years

New Member_____ Renewal_____

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Post Office Box 5655
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F & M Electronics Has It ALL!

Thank You for a
Wonderful Year

Our Best Ever!!!

Best Holiday Wishes
from
Frank & Mae

F&M ELECTRONICS
Frank N4AZM & Mae Wyatt

● Parts ● Accessories ● Microphones ● Batteries ● Books ● Antennas

3520 ROCKINGHAM ROAD NORTH
GREENSBORO, N.C. 27407
9:00 a.m. to 7:00 p.m. Daily Closed Mondays

(919) 299-3437

Dream Tinged with Nightmares

Continued from Page 19

What I couldn't understand was how the inspector could inspect the framing of the room with all the insulation up, inside and out, ceiling and walls.

I couldn't stand it any longer, so I called the office in Greensboro (long distance from Winston-Salem where I work).

I asked her the question. She couldn't answer it. She gave me one of the inspectors.

He asked several questions, assured me that they could see the framing "through" the insulation and I could continue to get it all up. They didn't want to inspect until the insulation was in place.

Things were looking up!

Then he said, "Mr. Williams, are you having any wiring done to your addition."

I told him that obviously I was.

"I'm sorry, Mr. Williams, we show you have not applied for an electrical permit."

I tried to think fast, but my mind was reeling. I guess the man kind of felt sorry for me and started asking questions as to how much of the wiring I had completed, how far along was the insulation, etc.

He said I had two choices. I could come over, apply for an electrical permit, take a little test to prove I knew what I was doing, go home and complete the job, or I could find a electrical contractor who would apply for the permit and finish the job.

I thank him, and chose the latter. Late Monday afternoon I found a contractor in Kernersville who was willing to come over and finish the job. (Electricians are kinda funny about picking up and finishing someone elses job).

Things are looking up!

"Mr. Williams, I'll be glad to do the work for you, but it will be at least Friday before I can get there," he said.

Virginia Beach hamfest, this weekend, I'm leaving Friday, won't be back until Monday, I explained to him.

So now here we sit another vacation week. Gotta get the electrician to tie down six wires, connect two sets to disconnects, and install two 30-amp breakers in my master panel. Then get the electrical inspection, then get the framing inspection, finish the insulation quickly, then get my insulation inspection. Then I can call in the Brick mason, and we can all get to work again.

Since my final days will run me past this issue's deadline, I'll let you know next issue if we get into our ham shack. Maybe we can have a celebration party. Either way, it's been a real education, the only problem as I write this, I don't know yet whether I failed or passed the course.

Bluefield Hamfest Best Ever

–by Don Williams, WA4K

The 1984 Bluefield Hamfest attendance increased 35% over 1983, a sign of rebounding economy in areas outside the coalfields and of cautious optimism in the mining areas of Southwestern Virginia, West Virginia, Eastern Kentucky, and Part of Tennessee.

"We had the best mix of dealers we have ever had," said Don Williams, WA4K, chairman of the event. Those dealers came from Ohio, West Virginia, Virginia, North Carolina, and South Carolina. "I'm very please. Practically every dealer left with a smile on his face, and that's what it's all about." Williams emphasized that without the dealers there would be no hamfest, and with too many dealers selling the same kind of equipment, they wouldn't sell enough to cover expenses.

Hams come to small hamfests like Bluefield to meet other hams whom they have met on the air, to buy equipment from dealers attending, to sell or trade ham gear and other electronics-related items in the flea market, and to just enjoy a day away from home with friends. Those hams this year came to Bluefield from six states and a radius of approximately 200 miles.

The CAROLINA MODEL and HOBBY EXPO

Charlotte Merchandise Mart

2500 E. Independence Blvd., Charlotte, NC

November 30 - December 2, 1984

Friday 12-9:30 Saturday 10-6:30 Sunday 12-6

Admission $2.50 Age 6—12 $1.00

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WEST VIRGINIA NOTES

By: Ted Wolfe, WD4KHL

It was with regret that I learned of the death of an old acquaintance, Bob Knapp – W4OMW – of Greenville, NC. I met Bob when I was a member of the Brightleaf Amateur Radio Club. That was in the late 70's when I was working in Eastern North Carolina for Channel 12 in New Bern and moonlighting weekends for WNCT radio in Greenville.

• • •

I'll not go into detail here as I'm sure most of you are already aware that we picked up some additional HF frequencies recently (especially more operating room for Generals). When that happened, the nightly West Virginia Fone Net (WVFN) on Sept. 1 moved from 3.900 to 3.865 Mhz for the 6:00 p.m. LOCAL TIME net. A week later the West Virginia Novice Net on 3.730 Mhz moved its time back from 6:15 to 6:30 p.m. LOCAL TIME. I was told that was to encourage hams more advanced than Novice to check into the Novice Net after the Fone Net.

• • •

Kanawha Valley hams assisted in several local public service events this summer. To mention only the two biggest, there were the Scarlet Oaks Celebrity Golf Tournament and some of the events during the Labor Day weekend Sternwheel Regatta on the Kanawha River. The Regatta has grown from a one-day event 14 years ago to one now spanning ten days of events, including the 15-mile Charleston Distance Run.

• • •

The Bluefield, WV, Hamfest was held Aug. 26 at the Brushfork Armory in Bluefield, and included licensing exams. Don Williams, WA4K of the sponsoring East River ARC, promised to write up the event for the **Journal,** so look for that story elsewhere.

• • •

The Jackson County (WV) Hamfest was held at Ripley on Sept. 8, but I didn't make that one.

• • •

Several area hams made it to Shelby for the big one there. They reported it was another big year for Shelby, another one that I still haven't made it to.

• • •

The Southwestern Virginia Wireless Association, Inc., PO Box 73, Roanoke, Va. 24002 distributed free outline maps of the states of Virginia and West Virginia, with repeater locations indicated, at the Bluefield hamfest. If you plan to travel in either state, a copy of the map would be handy to have in the car near the mobile 2-meter rig. Try an SASE to see if they have any left.

• • •

Your correspondent was written up — with photo — in the Metro East section of the Charleston (WV) **Sunday Gazette-Mail** on Aug. 19. The section is a supplement to the paper but goes only to the Upper Kanawha Valley, plus Boone and Fayette Counties. The story concerned my writing for the **Journal,** my weekly amateur radio column in the **Montgomery,** WV, **Herald,** and the occasional items sent to **Worldradio** and other publications promoting amateur radio in the Mountain State.

• • •

We're scrapping the Jumping Branch repeater from the **Journal** listing as soon as it can be done. The group proposing the repeater has been unable to proceed. Likewise the Pie/Horsepen repeater listing since we've been unable to contact the listed owner and the machine has been down for over a year.

• • •

R. L. Monroe, W8WHQ, and a Charleston group will be putting that call on a 144.83/145.43 repeater from Capitol Hill in Charleston.

• • •

The Marmet Bee Mountain 144.55/145.15 machine was operational in late September from the Appalachian Power Company shop in Charleston while the sponsors—a group of active or retired AEPCO employees who are also hams—wait for improvements to the transmitter building on Bee Mountain. Once a concrete floor has been installed by the Company, the hams—with AEPCO's approval—will have a secure mountain top building for their equipment.

• • •

Randy, N7GMG, Tacoma, WA, (Sorry, I didn't get his last name and don't have a recent callbook) was in the area for a

Continued on Next Page

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73 Magazine To Remain In CW Communications

Peterborough, N.H.—CW Communications/Peterborough has announced that it will retain 73: Amateur Radio's Technical Journal. Earlier this summer, CWC/P had announced its plans to consider selling the monthly magazine, despite its profitability, because of **73's** non-computer-related content.

Debra Wetherbee, CWC/P's Vice President and General Manager, explained the decision: "We had been considering offers from other publishers because, until now, our corporate strategy and identity were such that only computer-related publications and services were considered as viable products. Upon reevaluating 73, we recognized that the magazine serves a very important sector of the information technology community."

Jeffrey D. DeTray, CWC/P's Editorial Director and an amateur-radio operator himself, explained further: "Amateur radio's importance to communications technology wsa clearly shown by **73's** reports of the ham transmissions from Grenada during the U.S. invasion. Those transmissions were the only sources of information available to the American press at the time.

Ms. Wetherbee also announced that CWC/P has promoted John C. Burnett to publisher of 73. **Mr. Burnett had been Executive Editor of the magazine from November 1983 to July of this year, and had been responsible for conceiving and organizing the shuttle project. From March, 1977, he served as 73's** Managing Editor.

West Virginia Notes & News
Continued

family visit to Coal City around Labor Day. We talked several times on 2-meters and before his departure by air, and Joe Beam, KA8TBQ, managed an eyeball QSO with Randy and gave Randy a copy of the **Journal** to take back to Washington state.

• • •

About 30 hams and family members turned out for a picnic at Kanawha State Forest on Sat., July 28. Tom Murdock, K8IXO, is Park Superintendent there. I've asked him for a picture of his shack and maybe we can have it for a future **Journal.**

• • •

The only packet radio activity in West Virginia that I'm aware of at the moment is centered around Morgantown. Dr. Roy Nutter, N8BHI, an electronic circuit designs instructor at West Virginia University, presented a seminar on packet radio at the West Virginia state ARRL Convention and Hamfest at Jackson's Mill this summer. Later he presented the same program to the Kanawha ARC in Charleston (13 July), and at the Ripley Hamfest (8 Sept).

• • •

Since then I've learned that Johnny Jones, WB8CQV, Charleston has returned from a business trip out West. He stopped by Tucson and picked up a Tucson Amateur Packet Radio TNC kit, so we may hear some experimentation from him sometime soon. Johnny operates the 146.88 repeater in Charleston.

• • •

Things change so fast in Amateur Radio that an item no sooner appears in print than it is out of date. The MSO is no longer on the Beckley/Flat Top 146.85 repeater. But Jack Bird, WD8QOL, has an MSO running now on the K8BCH RTTY 147.975/375 repeater at St. Albans. I received the directory of commands through the mail in mid-September from Terry Sanner, WD4ALW.

• • •

Followup: Leon, WD8POF, who had to fly to Scotland in June because of the serious illness of his daughter, Elizabeth Morehouse, reports she is being returned to this country and will live in Norfolk after a visit with Leon and his wife, Carol, at Jumping Branch. Efforts are underway to have the Navy move up her husband's rotation date back to the US from his submarine assignment at Holy Loch.

• • •

Incidentally, Leon couldn't pass up (for $54 each) two radio units he ran into over there. They operate FM from 27.600 to 27.990 Mhz, and can be converted to work on the ham band.

• • •

Since this issue of the **Journal** should reach you about mid-November you'll have time to plan to attend the Greater Greensboro, NC, Hamfest Nov. 24-25.

• • •

From the TSRAC B-N-T: The Triple States Radio Amateur Club SET on Oct. 20-21 plans to operate CW, RTTY, FM, and SSB, and will have two emergency operating centers.

• • •

Jerry Miller, ex KA8RGQ is now N8FYF.

• • •

We referred to Mike Palmer, K8LG, Morgantown, the West Virginia CVRA/SERA Vice-Director, North, an application for coordination of another repeater near St. Mary's/Ben's Run.

• • •

It's not too soon to begin marking your 1985 calendars with Hamfest dates for that new year coming up soon. The 1985 event in Bluefield, WV, will be held on August 25. The 1985 Wheeling, WV, Hamfest is scheduled for Sunday, July 21, at Wheeling Park.

• • •

A meeting was held in mid-September in Charleston to discuss the ARRL Volunteer Examiner program. However, I've had no report on what was accomplished there.

• • •

By the time you get this **Journal,** Jim Davis, KU8R, Charleston should be underway with some ATV experiments. Jim plans an antenna at the 300-foot level on the old WCAW tower on a 500-foot hill in the Mission Hollow/Kanawha City area. Operation will be in the 420 to 450 Mhz band where ATV (fast-scan) is permitted.

• • •

Jim Andrews, KA8SMN, and his brother, Fred, KA8VGH, drove over 200-miles to Cincinnati on Sept. 15, to try to upgrade. Jim missed Advanced by one question but did come back with his General. Fred plans to try again in November. They did not remain overnight to attend the Sept. 16 Cincinnati Hamfest.

• • •

For old Mountaineers now living in other states, you can keep in touch through the Hillbilly Net on 14.290 Mhz each Sunday at 1600 UCT.

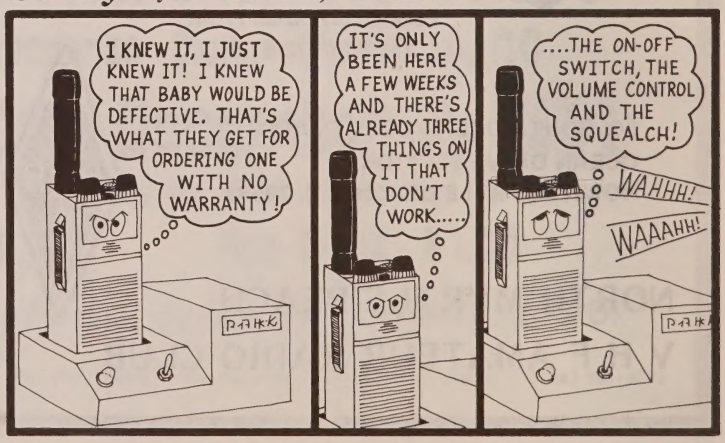
• • •

In our area we had a great band opening the morning of Sept. 13.

• • •

From midnight till 2:00 a.m. I worked two dozen mostly distant stations through the Bolt Mountain 145.17 repeater, including hams in Ohio, Kentucky, Indiana, Illinois, Michigan, and two from Ontario, Canada. Three hams, one each from Adrian, Mi, Lexington, Ky, and Cincinnati, Ohio, got into the repeater using handheld units of 2-watts of less. Only with 15 watts into a Ringo I brought up a machine in Connorsville, In., although I could not work audio through it.

Stubby *by Fred Hurteau, WD4SKH*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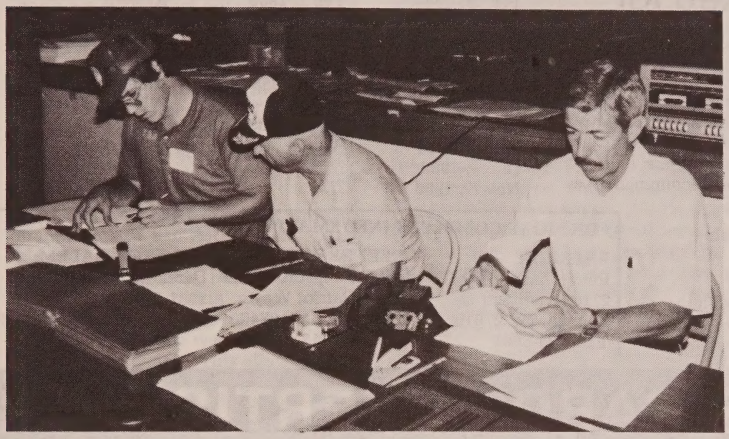
IT'S ONLY BEEN HERE A FEW WEEKS AND THERE'S ALREADY THREE THINGS ON IT THAT DON'T WORK.....
....THE ON-OFF SWITCH, THE VOLUME CONTROL AND THE SQUEALCH!
WAHHH!
WAAAHH!

Volunteer Amateur Exams Given At Bluefield



Bluefield W. Va. VEs administer code tests. Tommy Moak, N5FRR, Lee Brooks, K8BHG and Don Williams, WA4K sit at their table. Code was run on stereo cassette recorder with large speakers for superior quality.

Bluefield VEs grade tests as candidates look on. Tests were conducted the weekend of the Bluefield Hamfest at the Brown-Gilbert Basic Science Auditorium at Bluefield State College.

W5YI Administered Volunteer Exams At Bluefield

–by Don Williams, WA4K

The Bluefield Hamfest offered amateur radio licensing examinations for the first time on August 26th in Bluefield, West Virginia. The exams were given under the volunteer examiner program and were administered with the control of Fred Maia, W5YI, who is the Volunteer Examiner Coordinator for the Bluefield group. Maia is a VEC for all thirteen call regions.

The exams were a late-developing addition for the Bluefield Hamfest and therefore were not Publicized until four weeks remained. HF and two-meter nets were used as well as the hamfest flyer, which reached many hams only one week before the hamfest.

Tommy Moak, N5FRR, examining team leader, tells us that the exam had an 89% failure rate, due Primarily to lack of publicity and the fact that walk-ins were permitted. The lack of adequate commercial study guides was also thought to be a reason for the high failure rate. Those hams who passed had, in most cases, been prepared prior to hearing about the Bluefield test.

Other volunteer examiners administering the Bluefield test were Lee Brooks, K8BHG, and Don Williams, WA4K.

Williams, who is also chairman of the hamfest, mentioned that the Bluefield test may have been one of the last in the CVRA region to be given at no charge. The hamfest and the test were sponsored by the East River Amateur Radio Club, Inc.

Exams to be Offered In Bluefield, WV January 12th

–by Don Williams, WA4K

The Bluefield Examining Team, sponsored by the East River Amateur Radio Club, will offer amateur radio testing for the FCC licenses Technician through Extra Class on Saturday, January 12th, 1985. Don Williams, WA4K, spokesman for the volunteer examining team, asks that all amateurs who want to take the test mail their completed FCC form 610 and a check for $4.00 payable to "ERARC" to:

Bluefield VE c/o ERARC
2113 Hemlock Hill
Bluefield, WV 24701

The application MUST be received in Bluefield no later than Thursday, December 13th, 1985. Candidates will receive notification of time and place by mail approximately two weeks prior to January 12th, 1985.

Stewart Gets State Amateur Radio Post

Jack K. Stewart, WA4JET, of Cleveland has been named Chairman of the Tennessee Council of Amateur Radio Clubs. He was chosen when delegates met in annual session at the Oak Ridge Hamfest Saturday, April 21. Stewart succeeds O. D. Keaton of Old Hickory, who had served for two years.

Anita Teffteller, NG4Q, of Maryville was renamed secretary-treasurer of the TCOARC.

The TCOARC, through its statewide amateur radio net, helps coordinate activities and publicity for ham clubs across Tennessee.

In ham radio since 1962, Stewart is a charter member of Cleveland Amateur Radio Club. He is past president of the club and was corresponding secretary for a number of years. He has been instructor in novice classes for the past three years.

Stewart is also local coordinator for Tennessee Radio Amateur Communication Service (TRACS), The Communications ARM of the Office of Emergency Preparedness (Civil Defense). The new chairman is a member of American Radio Relay League, National Ham Organization, and for a number of years was an assistant director in the Four-State Delta Division. He has also served the Military Affiliate Radio Service (MARS) in the Navy-Marine Corps and later in Air Force MARS. He is a veteran of World War II, serving in the U.S. Army Signal Corps as a radar operator.

Jack and his wife, Jo, who is also a ham, live at 2907 Franklin Ave., NW, Cleveland.

Volunteer Exams Sked for 1985 by VEs in NC

A group of VEs in North Carolina have banded together to offer continuity in the offering of Amateur examination dates and points in the central part of the state. Here is their tentative schedule based on dates in Winston-Salem, Greensboro and Raleigh. The closing date is the time the 610 form must be in the hands of the sponsoring examiner. Normal recoupment fees will be charged for taking the examinations.

Piedmont Volunteer Examinations Schedule

Exam Date	Closing Date	City
Oct 20, 1984	Oct 13, 1984	Raleigh
Nov 24, 1984	Nov 17, 1984	Greensboro
Jan 19, 1985	Jan 5, 1985	Winston-Salem
Feb 16, 1985	Feb 2, 1985	Raleigh
Mar 9, 1985	Feb 23, 1985	Greensboro
Apr ??, 1985	????	Winston-Salem
May 18, 1985	May 4, 1985	Raleigh
Jun 15, 1985	Jun 1, 1985	Greensboro
Jul ??, 1985	????	Winston-Salem
Aug 3, 1985	Jul 20, 1985	Raleigh
Sep 14, 1985	Aug 31, 1985	Greensboro
Oct ??, 1985	????	Winston-Salem
Nov ??, 1985	????	Raleigh

FOR MORE COMPLETE INFORMATION:

RALEIGH:
John Johnson, WM4P
2118 Lyndhurst Dr.
Raleigh, NC 27610
(919) 834-5001

GREENSBORO:
Walt Thompson, WV4K
2505-A Patriot Way
Greensboro, NC 27408
(919) 288-8119

WINSTON-SALEM:
Derek Brown, WF4I
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Keeping In Touch-Chap. 2

Continued from Page 16

north we quickly got out of range of all repeaters providing two-way contacts with Franklin and Chattanooga. In our first few days we made direct contacts through the Galax (145.13), Mt. Mitchell (145.19), and Greenville, Tn. (145.43) repeaters. Unfortunately the pleasure of sending a message home and standing by on frequency for a reply faded after the first week.

Having anticipated the change in communications, I had ARRL Radio Gram blanks with me. When it became apparent our handheld radios could not reach repeaters within range of our respective homes, we began seeking stations to put one-way traffic on the high frequency nets. This allowed us to keep our families advised of our progress.

Although the response on two meters for relay of traffic over other bands was not always immediate, we never failed to get someone to handle our traffic. This is understandable since many Hams who operate on two meters seldom operate on the HF bands. Sometimes their exposure to traffic handling is limited and there is a reluctance to venture into the unknown. Perhaps we could improve this situation by deliberately generating more items of formal traffic (for practice and exposure) to be passed on two meter nets.

I would like to emphasize that I always found someone to handle all routine traffic and responses to handle **priority** traffic was immediate on three occasions. I appreciated David, N4IWX who heard my Appalachian Trail location and responded: "I'm fairly new to Ham Radio and do not know much about handling traffic, but I'll make a couple of phone calls to find someone. If I can't find someone I'll take the traffic and find someone to handle it tonight". Within minutes Max, K4YPF was on frequency at David's request and took the traffic. On another occasion Dan, W8KMX responded: "I'm in a travel status and cannot handle traffic on the nets but I'll take your message and deliver it by long distance telephone". Since the message was routine I declined but certainly appreciated his response.

When in range of wide coverage repeaters I would locate an experienced traffic handler and utilize their assistance as much as possible. Among those handling multiple messages were Gary-KM4X, Bob-WA8UWU, Fred-WA8LFW, Max-K4YPF, and last but not least, Joyce-WB4PNY. Joyce handled traffic almost daily the first week of June while I was in range of Richmond, Va. repeaters.

I have now completed 1018 miles (almost half) of the Appalachian Trail. Ham Radio Operators along the way have kept me in touch with the outside world and the folks at home. The hobbies of Ham Radio and backpacking go hand in hand. Many words of thanks are due the Clubs, Trustees and individual Hams who maintain our 2-meter repeaters and make communication from remote backpacking trails possible. Hopefully I'll be talking to Hams between Pennsylvania and Maine as I complete the 2100 mile Appalachian Trail in the next couple of years.

1985 League Planning Meet

The 1985 Roanoke Division ARRL LPM will be held May 11 & 12, in Raleigh, North Carolina. Mark your calendar.

REPEATER-CLUB-NET SERVICE PAGE

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Continued from Page 16

munity . . . . personally, meet with them, their families, their friends. The personal aspect and fraternal aspect of Amateur Radio on VHF is unlike any other band we have at our disposal. It is not better than HF, it's just different, a change from what some are use to.

Repeaters

The main source of communications on the VHF FM bands is through the use of repeaters. A repeater is a transmitter and a receiver, with control circuitry. It is generally located in a good area for long-range communications.

The basic idea of a repeater is to take your transmitted signal, and re-broadcast it on another frequency, greatly increasing the range of your communications.

There are basic repeaters designed for just FM communications. There are linked repeaters enabling your signal to be passed from a repeater in one city, to a repeater in another city, thereby greatly increasing your communications distance. There are repeaters containing microprocessor controls that do everything. Some sophistocated repeaters will give you the time, temperature, tell you if your deviation, frequency is ok, leave you a message allow you to make a phone call, allow you to receive a phone call, let you listen to yourself, let you key into the HF bands, hear the latest weather, club announcements and scores of other features.

The sophistocated repeater features are accessed usually with a touchtone pad. Various combinations of numbers off your pad, access various functions and features of the repeaters.

A newcomer to 2-meters should get in touch with a club member or owner of one of these type repeaters and find out just what these machines are capable of and what codes are needed before trying at random, to see what will happen.

The Frequency Channels

The 2-meter band (as is with all VHF/UHF bands) has a coordinated set of channels for repeaters to operate on. These channels, or frequencies were set up as standards many years ago, and for the most part are the same across the United States. A repeater you might work on a channel in Greensboro, N.C. might have another repeater on the same channel 100 or 150 miles away, such as in Asheville, N.C., or Columbia, S.C. and across the nation.

In our area, a repeater always has a 600 kHz offset. In other words the transmit of the repeater is always 600 kHz above or below the receive frequency. Our sub-band channels in the 144-145 mHz portion of the band have 20 kHz spacing between each channel.

The coordinated channels in the CVRA-SERA territory total 85 on the 2-meter FM band. The first channels begin in what is called the sub-band. With the 600 kHz offset, we then find that our first FM channel on 2-meters is 144.51 mHz transmit, and 145.11 mHz receive. (Our transmitter operates 600 kHz down from our receiver). To simply the jargon, we could simply call the channel 51-11 (five-one, one-one) simply dropping the MHZ. Since the sub-band has 20 kHz spacing

Continued on Page 42

Thompsons Win State Ham of the Year Award

–by Jack Stewart, WA4JET

A husband-wife team has won statewide recognition and awards as "Ham-of-the-Year" in Tennessee.

Rubert and Violet Thompson of Alamo, Tennessee, in Crockett County were named joint winners. They were presented a plaque and certificates at the Crossville Hamfest Sunday, July 22.

Tennessee Ham of the Year Award is sponsored by the Tennesse Council of Amateur Radio Clubs.

Rube, WA4FMR, and Vi, WA4FMQ, have been active in ham radio for over 20 years and are regular operators on the Tennessee and Mississippi traffic nets. They were nominated by Radio Amateur Club of Knoxville.

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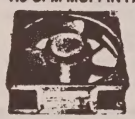

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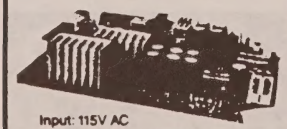

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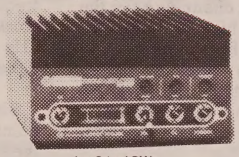

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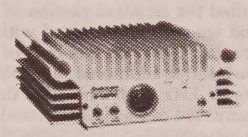

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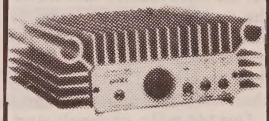
Out: 60-90W



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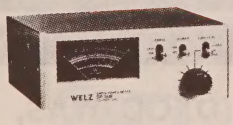

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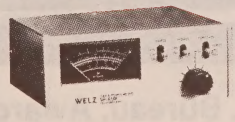

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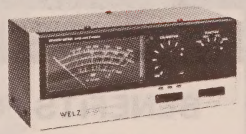

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You Always Wanted to Know

Continued from Page 40

between channels, our second FM channel would be 144.53-145.13, or simply 53-13. Channels then continue 55-15, 57-17 thru 144.89-145.49 (89-49) for a total of 20 channels in the sub-band.

The 146-148 portion of the band is called the standard portion of the band and we originally started with 30 kHz. spacing, but as the band began to fill up, we inserted additional channels between the 30 kHz channels. Now the band is composed of the 30 kHz standards, and in between, the 15 kHz splits (sometimes called splinters, split-splits, teritery channels). This portion of the band has our remaining 65 FM channels. The 146 portion has our transmitter down 600 kHz from our receive. We call this: "Lo-in & Hi-out". The 147 portion of the band reverses and our transmits are higher than the receives or Hi-in & Lo-out. There is a portion of the band at the 147.00 mHz receive that we have placed the option for repeaters to either go in low, or go in high. Even though two repeaters might have the same output, their inputs are 120 kHz apart. We have 3 channels and 3 splits that are this way.

Our 146 mHz. channels start at 146.01 mHz transmit, and 146.61 mHz receive. We simply call it 01-61 (Oh-one, Six-One) Our next standard pair is 30 kHz up, so the second standard channel would be 146.04-146.64 (04-64). Adding the split pair in between, we have 146.025-146.625 (025-625). So our channels go up every 15 kHz: 01-61, 025-625, 04-64, 055-655, 07-67 . . . etc up to 146.40-147.00. Here is where the six channels have the option of low in or high in. Some repeaters will be 146.40 input with a 147.00 output, while others will have 147.60 input and 147.00 output, while others will have 147.60 input and 147.00 output. The same is true for the five channels after this one.

At 147.69 xmit, 147.09 rec. (we have inverted at 147 mHz) the channels continue to the last one of 99-39.

Reading Repeater Indexes

Some confusion is possible when a person reads a repeater index in the Repeater Journal, the ARRL Repeater Directory or any other index. One thing to always remember is that the first frequency listed is YOUR transmit, and the second listed is YOUR receive.

Actually repeaters are listed backwards from the way they operate, but this is to prevent confusion to the operator. The indexes are listed, and repeaters are identified on the basis of YOUR transmit and receive frequency. (An 04-64 repeater has a receiver on 146.04 and transmits on 146.64. This enables you to access the machine on 146.04, and receive it on 146.64. We call it an 04-64 machine.)

Setting Up Your Radio

All synthesized radios on the market today require that you tune in the receive frequency of the repeater you want to work, and then merely switch the 600 kHz offset switch for your transmit either minus 600 kHz or plus 600 kHz.

Simplex Operation

Simplex operation can be described as point-to-point communications without the aid of a repeater. On simplex, you are transmitting on the same frequency you are receiving. The person on the other end is hearing your actual transmitted signal, as you are actually hearing his transmitted signal. On a repeater you are hearing his signal being re-transmitted on a separate frequency.

The simplex portion of the band falls between repeater inputs and outputs. Standard channels have been set aside for simplex operation. Our simplex channels begin at 146.49, 146.52, 55, and 58. On 147 they are 147.48, 51, 54, and 57. Sometimes the 15 kHz spacings between the channels are used for simplex.

MORE NEXT ISSUE

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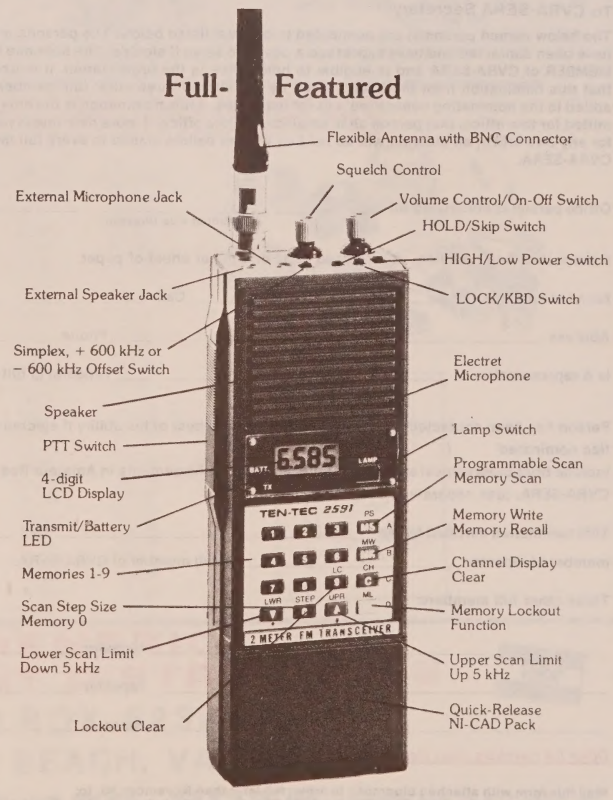


Looking Back To Be New Feature in Feb.

–by David Ward, KA4LVO

One day last week, while up in the loft working on CVRA-SERA related business, I actually stumbled across the file copies of the Repeater Journal from 1974 on. While picking myself up off the floor and rubbing the arising bump on my head, I thought of a use for these issues.

Beginning with the February issue, I will be "looking back" 10 years to see what topics were being discussed and reported in the Journal.

For instance, 10 years ago in Greensboro, N.C., the Journal reports that a new radio club for women was organized. As they put it, "we wanted the name of the club to catch the eye of the public. Finally it was decided to call it The L.I.A.R.S. . . . . it stands for Ladies In Amateur Radio Society.

Be watching in February for more on this and other interesting bits of information from the back issues of the Repeater Journal.

ARRL-VEC 48 VEs in NC

A report from Rae Everhart, K4SWN, ARRL NC Section Manager indicates the ARRL-VEC has approved 48 applications for VEs in the state of licensees.

He said more will be certified as soon as exam material is returned to HQ. A total of 80 Extra and 31 Advanced have applied to become VE in the N.C. section. Presently many are still completing the VE exam required by ARRL-VEC before they can be certified.

The Decals are Coming!

–by David Ward, KA4LVO

Negotiations are underway and plans are being made to make available decals of the CVRA-SERA logo in the near future. During the late 1970's a three inch diameter decal was produced for the organization and sold to its members. However this supply was exhausted about 1980. Now due to a rising demand for a CVRA-SERA decal, another design and order is being worked up.

CVRA-SERA DIRECTOR / VICE-DIRECTOR NOMINATION FORM

To CVRA-SERA Secretary:

The below named person(s) are nominated to office(s) listed below. The persons nominated have been contacted and have expressed a desire to serve if elected. The nominee is a FULL MEMBER of CVRA-SERA and is eligible to hold office in the organization. It is understood that this nomination from the floor, signed by myself and three other full members will be added to the nominating committee's list of nominees. If this nomination is the only one submitted for this office, that person shall be elected to the office. If more than one is nominated for any one office, an election will be held by written ballots mailed to every full member of CVRA-SERA.

Office person is nominated for _____
(Director or Vice-Director)

If more than one nominee, use xeroxed copy or simular sheet of paper.

Name of nominee _____ Call _____

Address _____ Phone _____

Is A representative of _____ repeater (a full member)
(Call-City-Freq)

Person has been contacted and has agreed to serve to best of his ability if elected to the office nominated ( ) Yes

Include brief Biographical sketch of nominee and his achievements in Amateur Radio and /or CVRA-SERA. (Use separate sheet of paper)

This nomination certified by me _____ Call _____

member of repeater _____, a full member of CVRA-SERA.

Three other full members:

_____ call _____ repeater _____

_____ call _____ repeater _____

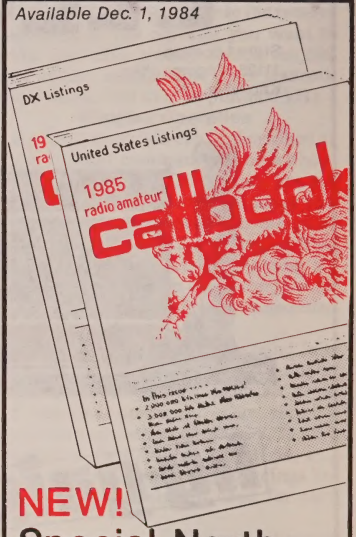
_____ call _____ repeater _____

Other full members must sign their signature personally.

Mail this form with attached biography to arrive NO later than November 30, to:
NITA MORGAN, CVRA-SERA SECRETARY, 1504 Woodnymph Trail, Lookout Mt., Tn. 37350

1985 CALLBOOKS

Available Dec. 1, 1984



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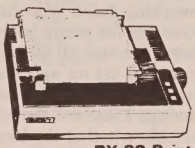

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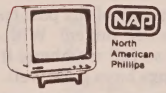

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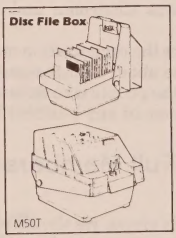

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Report from Georgia

–by Lindsay Cleveland, W4IZI

In the Merrie Month of May 'way back in 1982, I finally wound up my term of banishment to the Frozen Wastes of Chicago and returned to the Sunny South. Making my new home in the Atlanta area, I was once again able to enjoy the pleasures of attending hamfests.

It was fun to set up a CVRA-SERA booth and meet lots of friendly Georgia folks. Many took the time to say how they looked forward to each issue of the Journal and were hoping that Georgia would soon join the Association as a new district. To help this process along, I passed out "packages" to repeater owners and sponsoring clubs showing some of the correspondence and considerations which the folks in West Virginia generated in their evaluation of "What's In It For Us?" prior to joining. I also supplied a copy of the Association's Constitution and ByLaws so that they could see what CVRA-SERA was really all about. It seems that successful fruit was produced from these "seeds", since we now have over 20 repeaters as full members of the Association.

In the next few months I telephoned many repeater owners and "knowledgable" users asking for news items for the Journal. Thanks to their help, there was a "Georgia News" section in the November 1982 Journal. (That's the one with the cover showing the five existing Association district "Parrots" in formation with a Georgia "Parrot" about to join in.) And thanks to many helpful folks supplying me with updates, we have been able to keep the Journal's listing of Georgia repeaters rather accurate.

However, it certainly wasn't appropriate for me to try "pushing" the Georgia folks into joining the Association as a District. That was something that should only have been done by the hard-working folks who have been here in Georgia for many years. The ones who went through all the agonies of getting a repeater set up and keeping it running, and who are still doing all that work today. They are the ones who have to decide whether the benefits of being an Association District are "worth it." The last thing needed here was some Johnny-come-lately "outsider" trying to "organize" the State! Consequently, I have intentionally tried to keep a low profile.

The results of the past two years have been rather mixed! With over 20 repeaters as full members, it would seem that things have gone well. On the other hand, no one has taken the trouble to supply the Editor or me with any news items or information about "what's going on in this area" in the past two years.

Perhaps the folks on the Journal staff are partly to blame. We have pretty much been treating Georgia as a full-fledged District for two years. A full listing of all repeaters has appeared in each issue since August 1982; something which has not been done for any other State. It might be that the Association has provided Georgia too many of the benefits of membership before it became a member. This is a bit unfair to the other Districts who have assumed the responsibilities which go along with their benefits. Our only excuse is that we wanted to make as "positive a case" for membership to the Georgia folks as we could.

So beginning with this month, we shall no longer list all the Georgia Repeaters. However, we certainly don't want to penalize those 20-plus machines who have joined the Association as Full Members. They were the ones who took that extra step and should be properly recognized. It wouldn't be quite fair to hide them amongst the South Carolina or Tennessee listings (as was done in the past.) So we shall continue to have a Georgia section in the Journal Index, but it will only list the Full Member repeaters. This will show them off as the special folks they are!

But make no mistake . . . we sincerely hope this is only a temporary situation! Hopefully the Georgia repeater owners and sponsors will soon decide that they wish to participate in the goals and ambitions of all the many CVRA-SERA repeaters, and to make their own unique contributions to the Association.

Who Is Running The Show!

Continued from Page 1

seem the most concerned and care for the organization more than any others. I don't know of any five Directors or Vice-Directors who have put as much time into the organization as our Associate Membership Chairman, Our Full Membership Chairman, our computer operator, our Sales Manager, or even our Circulation Manager. These people always come through. They always make the time to get the job done, and they do their job well.

Yet, each of these "appointees" are not Full Members, they pay their dues each year for the "privilege" of working for the organization, they never miss any of the semi-annual meetings, and at the meetings cannot vote.

A proposed change to the CVRA-SERA by-laws if approved will alleviate this. The new proposal in essence says: "a quorum shall be a majority of Officers, Directors, Vice-Directors and/or their Assistants, Full Membership, Associate Membership and Publications Chairmen and/or their assistants. Each will have a vote."

I think this will make the organization move forward and keep up with the many changes that have come about over the past two years.

It's only fair . . . let the people who do most of the work in the organization have a voice in the final outcome of any business that must be conducted.

–Wayne C. Williams, K4MOB

Open Letter to Full Members

Continued from Page 1

nal and let you know his views. He should respond promptly to any correspondence he may receive from any of you. He should be known by all of you, and he should be your friend when you need him.

Finally, to address the prospective new Directors. If you don't feel you can devote time necessary to do the job required of a Director, you would be doing all of us a favor by resigning immediately, or withdrawing your name from nomination.

It is time for us to move forward, and we need some new leadership who is willing to take the time necessary to get the job done. The pay is lousy, but there are lots of fellas and gals who have done their job well for years. They need your support, because they are going to do their job, with you or without you.

–Wayne C. Williams, Editor

TEARC Certified As VEC in 4th Call District

Triad Emergency ARC, of High Point, N.C. has been certified by the FCC as another Volunteer Examiner Coordinator for the Fourth Call District.

Spokesman for the group, Jim Williamson, NQ4T said they will be planning examinations in the area, at least every 30 days. He said they are actively seeking VE's to assist in examinations.

The group is coordinating their first exam on November 10 in High Point, N.C.

No further schedule or plans for out-of-state examinations were given at press time.

Information on becoming a VE or for examination scheduling in your area (except West Virginia) may be obtained by writing, Jim Williamson, NQ4T, TEARC-VEC, 3504 Stonehurst Place, High Point, N.C. 27260. Phone (919) 869-6637.

Coming Events

1984 HAMFEST DATES

NOVEMBER

4 ..... Hamfest, CONCORD, N.C.
10-11 ..... Hamfest, STONE MT., GA.
24-25 ..... Hamfest, GREENSBORO, N.C.

1985 Hamfest/Convention Calendar

Note: Dates marked with an asterisk are NOT confirmed dates. They are based on last year's show dates. Clubs and groups sponsoring hamfests are urged to contact the Journal Editor for confirmation of their show dates. Deadline for February issue is January 1.

JANUARY 1985

12-13 ..... Hamfest, SARASOTA, FLA.
13 ..... Frostfest, RICHMOND, VA.
26* ..... Hamfest, SEVIERVILLE, TN.

FEBRUARY 1985

2-3* ..... Hamfest, MIAMI, FLA.
17 ..... Winter Hamfest, ELKIN, N.C.
24 ..... Hamfest, FAYETTEVILLE, WV
24 ..... Winterfest, VIENNA, VA.

MARCH 1985

9-10 ..... Hamcation, ORLANDO, FLA.
16-17 ..... Hamfest, CHARLOTTE, N.C.
30-31* ..... Hamfest, COLUMBUS, GA.

APRIL 1985

7* ..... Hamfest, KENNEHOOCHIE, GA.
14 ..... Hamfest, RALEIGH, N.C.
14* ..... Hamfest, KENNESAW, GA.
20* ..... Hamfest, OAK RIDGE, TN.
19-21* ..... Baloneyfest, HENRY HORTON STATE PK., TN.
26-28* ..... Hamvention, DAYTON, OH.

MAY 1985

4-5 ..... Hamfest, GREENVILLE, S.C.
11* ..... DFMA Hamfest, DURHAM, N.C.
11-12 ..... Roa. Div. LPM, RALEIGH, N.C.
18-19* ..... Hamfest, BIRMINGHAM, ALA.
18-19* ..... Hamfest, LAKE HARTWELL, GA.
19* ..... Hamfest, DALTON, GA.
25-26* ..... Hamfest, KNOXVILLE, TN.
26* ..... RVARC Hamfest, ROANOKE, VA.
26* ..... Hamfest, HARMANS, MD.

JUNE 1985

2* ..... Hamfest, HUMBOLT, TN.
2* ..... Hamfest, MANASSAS, VA.
8* ..... Hamfest, BOWLING GREEN, KY.
8-9* ..... Hamfest, ATLANTA, GA.
13-14* ..... Hamfest, ROSSVILLE, GA.

JULY 1985

6-7 ... WV State Radio Council/Hamfest, JACKSONS MILL, WV
6-7* ..... Hamfest, ROSSVILLE, GA.
20 ..... Swapfest, CARY, N.C.
20* ..... Hamfest, ANNISTON, ALA.
20-21* ..... Hamfest, CROSSVILLE, TN.
21* ..... TSRAC Hamfest, WHEELING, WV.
20-21* ..... Hamfest, CHARLESTON, S.C.
27-28* ..... Hamfest, ASHEVILLE, N.C.
28* ..... Hamfest, NASHVILLE, TN.
28* ..... BRATS Hamfest, W. FRIENDSHIP, MD.
28* ..... Jax County Hamfest, RIPLEY, WV.

AUGUST 1985

3-4 ..... Hamfest, JACKSONVILLE, FLA.
4* ..... Hamfest, (Winchester) BERRYVILLE, VA.
11* ..... Hamfest, LEXINGTON, KY.
17-18 ..... Hamfest, HUNTSVILLE, ALA.
24-25* ..... Hamfest, MADISON, GA.
24-25* ..... Central Ala. Hamfest, MONTGOMERY, ALA.
25 ..... Hamfest, BLUEFIELD, WV.
25* ..... Hamfest, CEDARS OF LEBANON PK. TN.
25* ..... Hamfest, MORGANTOWN, WV.
30-Sep. 1* ..... Hamfest, SHELBY, N.C.

SEPTEMBER 1985

7-8* ..... Central Ga. Hamfest, WARNER ROBBINS, GA.
7-8* ..... Tri-Cities Hamfest, GRAY, TN.
7-8* ..... Swapfest/Picnic, CLEVELAND, TN.
8* ..... Hamfest, GAITHERSBURG, MD.
14* ..... WCARS II Swapfest, GREENWOOD, S.C.
15* ..... Hamfest, AUGUSTA, GA.
21-22 ..... Hamfest, VIRGINIA BEACH, VA.
22* ..... Hamfest, GAINESVILLE, GA.
22* ..... Hamfest, CINCINATTI, OH.
28-29 ..... ARRL Nat'l Conv., LOUISVILLE, KY.
29* ..... Hamfest, LAKE LANIER, GA.

OCTOBER 1985

6* ..... Hamfest, ROCK HILL, S.C.
6* ..... Hamfest, ROME, GA.
12-13* ..... Hamfest, CLEARWATER, FLA.
12-13* ..... Hamfest, MEMPHIS, TN.
13* ..... Hamfest, MAYESVILLE, N.C.
26-27 ..... Hamfest, CHATTANOOGA, TN.
19-20* ..... Hamfest, SAVANNAH, GA.

NOVEMBER 1985

2-3* ..... Hamfest, STONE MT., GA.
3* ..... Hamfest, CONCORD, N.C.
30-Dec. 1 ..... Hamfest, GREENSBORO, N.C.

**Tentative Date, Based on Last Year's show date.*

SouthEastern Repeater Association, Inc.

FINANCIAL REPORT AS OF SEPTEMBER 30, 1984 and 1983

	1984	1983
REVENUES		
Advertising	$ 5,127.50	$ 4,951.75
Associate membership dues	7,408.25	7,890.00
Full membership dues	1,450.00	1,941.00
Other	49.75	16.25
	$14,035.50	$14,799.00
EXPENSES		
Journal mailing	$ 1,856.65	$ 1,817.98
Journal printing	11,028.31	10,833.61
Miscellaneous expenses	2.35	–0–
Directors meetings	534.19	600.51
Office expenses	21.25	106.49
Amortization of copy machine	448.00	448.00
Postage other than journal	101.86	204.74
Printing other than journal	242.17	995.69
Telephone	241.24	351.46
	$14,476.02	$15,358.48
REVENUE OVER (UNDER) EXPENSES	($ 440.52)	($ 559.48)
Balances, beginning of year		
Expenses advanced	$ 800.00	$ 700.00
Cash in bank	2,507.39	1,135.60
Invested in copy machine	1,792.00	2,240.00
	$5,099.39	$ 4,075.60
EQUITY TO ACCOUNT FOR	$4.658.87	$ 3,516.12
Less: Expenses advanced	$ 900.00	$ 800.00
Invested in copy machine	1,344.00	1,792.00
	$2,244.00	$ 2,592.00
CASH IN BANK	$2,414.87	$ 924.12

Ray Adams, N4BAQ, Treasurer

New Ham Watch Program Active in North Carolina

–by Reed Whitten, AB4W

Participation in the State of North Carolina HAM WATCH Program is open to all licensed North Carolina radio amateurs, as is participation in the ARRL sponsored Amateur Radio Emergency Service (ARES).

HAM WATCH vehicle identification tags, with your call sign, are now available to North Carolina HAM WATCH participants. These tags provide recognition for the outstanding contributions of Amateur radio operators as well as providing a ready identification of radio amateur's vehicles in emergency situations.

These are not motor vehicle license plates and must be displayed only on the front of a vehicle.

These HAM WATCH tags are being distributed by North Carolina ARES, which has supported the HAM WATCH program since its inception.

Orders for tags should be placed by completing a form and submitting it along with a check payable by completing a form and submitting it along with a check payable to "North Carolina ARES" to your local Emergency Coordinator. Orders placed through your EC will be given the highest priority. If you do not have an EC, you may send your order to: Reed Whitten, AB4W, North Carolina Section Emergency Coordinator, 1208 Oxford Place, Cary, N.C. 27511. Since these tags are custom made, please allow at least two months for delivery.

Sample License Application

I am a licensed radio amateur and want to demonstrate my participation in the HAM WATCH Program by displaying a HAM WATCH vehicle identification tag on the front bumper of my vehicle. I am familiar with the guidelines and principles of the North Carolina HAM WATCH Program and agree to make available my amateur radio communication capabilities.

Call Sign _____ No of HAM WATCH tags _____

Name _____ Cost per tag $4.00

Address _____ Total $ _____

City _____, NC (Zip) _____

Home Phone _____ Business Phone _____

County _____ EC's Call _____

Estimated miles driven in North Carolina per week _____

Signature _____

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Amateur Accessories (NJ) 31
American Radio Relay League (CT) 42
Business Card Advertisers 38
Carolina Model & Hobby Expo (NC) 34
Certified Communications (MI) 48
Club/Repeater Service Page 39
Dynamic Engravers (NC) 19
Electronic Equip. Bank (EEB) Antenna Bank (VA) ..... Ins. Ft. Cover
Encomm, Inc. (TX) 15
F & M Electronics (NC) 33
Generic Discount Distributors (VA) 45
G.I.S.M.O. Communications (SC) 18
Greensboro Hamfest (NC) 4-5
Heathkit Store (NC) 10
H.L. Heaster, Inc. (WV) ..... Ins. Bk. Cover
Jomar Electronics (VA) 40
KOH Sofeware (NC) 9
MarVista Motel (SC) 35
Repeater Journal Advertising Rates 30
Richmond Frostfest (VA) 8
Smokey Mt. Electronics (TN) 43
West Antenna Service (NC) 14,20,32
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